

UNIVERSITY OF THE WESTERN CAPE

SCHOOL OF GOVERNMENT



UNIVERSITY *of the*
WESTERN CAPE

FACULTY OF MANAGEMENT SCIENCES

**THE INSTITUTIONAL CHALLENGES FACING CITY OF WINDHOEK IN THE
PROVISION OF WATER AND SANITATION SERVICES: A CASE STUDY OF
THE HAVANA INFORMAL SETTLEMENT**

A mini-thesis submitted in fulfillment of the requirement for the degree of Master of Public Administration at the School of Government, Faculty of Economics and Management Sciences, University of the Western Cape.

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October 2020

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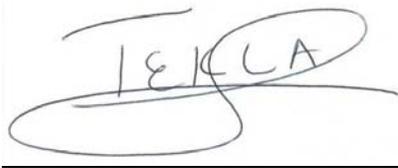
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PLAGIARISM DECLARATION

I, Tekla NM Amutenya, hereby do declare that this thesis titled "*The Institutional challenges facing City of Windhoek in the provision of water and sanitation services - A case study of Havana Informal Settlement*" is my own original work and that this thesis has not been previously in its entirety or in part been submitted at any academic institution in order to obtain an academic qualification. All sources that I have quoted have been indicated and duly acknowledged by means of referencing.

Signed by:

A handwritten signature in black ink, appearing to read 'TEKLA', is written over a horizontal line. The signature is stylized with a large, sweeping underline that loops back under the letters.

Tekla Amutenya – 3986721

Date: 2020-10-06

ACKNOWLEDGEMENT

I would like to thank the almighty God for the strength and energy he has given me to complete this research, as well as for everything he has done for me through my entire life, especially in furthering my studies. A special thanks to my supervisor, Dr Gregory Davids, for his effective style of supervision and high level of professionalism shown during the course of supervising this research. His guidance, encouragement, dedication and support to me will never be forgotten. A huge appreciation to everyone else who contributed to the success and completion of this research. My sincere appreciation to all the respondents of the Havana Informal Settlement who took time to answer my questionnaires and the staff members at the City of Windhoek who also took time from their busy schedules to sit down for an interview with me and as well as for their professionalism and contribution. Lastly, I would like to thank the University of the Western Cape (UWC), for allowing me to participate in this program. Without you, this research would not have been possible. Thank you very much. God bless you.

LIST OF ACRONYMS, ABBREVIATIONS AND INITIALISMS

COW	City of Windhoek
GRN	Government
JMP	Joint Monitoring Programme
LED	Local Economic Development
NDP	National Development Plan
MAWF	Ministry of Agriculture, Water and Forestry
MDG	Millennium Development Goals
MRLHRD	Ministry of Regional and Local Government, Housing and Rural development
PPP	Public Private Partnership
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
UN	United Nations
WHO	World Health Organisation
WASSP	Water Supply and Sanitation Sector Policy
NamWater	Namibian Government parastatal responsible for bulk water supply

ABSTRACT

This study examined the institutional challenges facing the City of Windhoek in the provision of water supply and sanitation in the Havana Informal Settlement. Like most cities in developing countries, Namibia is faced with the triple challenge of poverty, unemployment and inequality, even though Namibia after its liberation developed several policies to ensure that equitable service delivery is provided to all its citizens. Approximately 60% of the city's population resides in informal settlements, with inadequate and poor service delivery such as sanitation and water supply. External factors such as climate change amongst others have a huge impact in a water-scarce country such as Namibia on attaining the sustainability of water resources.

The study adopted a mixed-method research design, where both quantitative and qualitative methods were used. The population of the study comprised of the residents of Havana Informal Settlement in Windhoek and a systematic sampling technique was used. The sample comprises 35 adults between the age range of 20 and 50 years old. Interview schedules were used to collect data from the employees of the City of Windhoek and the Municipal Council. Purposive sampling was used to identify the employees from the City of Windhoek and the Municipal Council to be interviewed. The interviews targeted employees from the department responsible for water, sanitation and community development as well as the Municipal Council since they are entrusted with the executive and legislative mandate to formulate and implement service delivery policies and strategies.

The findings of the study indicate that the debt collection policy is not implemented resulting in a weak revenue collection. The vandalism and theft of infrastructure must be addressed as a matter of urgency. There is a need for effective monitoring and a review of mechanisms by the Municipality. The government needs to implement a decentralised, sustainable, economic infrastructure development framework to assist cities to deliver basic services. Poor policy formulation and implementation results in the service delivery implementation program not addressing the current societal needs. The results of the investigation show that

an indifferent political and administrative attitude, poor maintenance, indiscriminate dumping of refuse in drains, erection of buildings on drainage channels and the alignments inhibits the flow of water.

The study recommends that the old infrastructure is replaced because it is well beyond its lifespan and there is a need for drainage covers to prevent persons from dumping waste into the waterways, which causes blockages and breeding of diseases in the environment. Provision of sanitation through the free basic household sanitation program should be made available to residents who cannot afford to build their own sanitation facilities. A continuous advocacy and enlightenment campaign is required to create awareness on the dangers of environmental neglect.

Keywords: *Informal settlement, Sanitation, Adequate Sanitation, Household, Urbanisation, Policy, Municipality, Security of Tenure, Sustainable Human Settlement, Legislation*

CHAPTER ONE

BACKGROUND OF THE STUDY

1.0 INTRODUCTION AND BACKGROUND

Namibia gained its independence in 1990 but the years of colonisation resulted in a skewed socio-economic development amongst the local people (Government of Namibia, 2003). Namibia is faced with the triple challenge of poverty, unemployment and inequality. The poor generally is dependent on the state for the provision of basic services. Namibia after its liberation developed a number of policies to ensure equitable service delivery is provided to all its citizens. The challenge though is the provision of basic services such as water and sanitation and sustainable service delivery are impacted by many internal and external factors. An external factor such as climate change in a water-scarce country such as Namibia is a major issue that impacts the sustainability of water resources.

Climate change and its impact on the sustainability of scarce water resources necessitate a need for policy review and the subsequent formulation and implementation of new water and sanitation policies (Government of Namibia, 2005). The government has taken the aforementioned into consideration and developed the national policy for the development of community-based water supply and environmental sanitation. The policy intends to enhance the development, provisioning, maintenance of sustainable and reliable infrastructures and facilities (Government of Namibia, 2005).

The provision of basic services is the responsibility of municipalities, such as the City of Windhoek municipality. Windhoek is the capital of Namibia and faced with many internal and external challenges to ensure the provision of basic services such as water and sanitation.

The City of Windhoek in collaboration with the Department of Infrastructure, Water and Technical Services are responsible for the supply, distribution and quality of potable water as well as the collection, reticulation and treatment of sewerage water (Senyakoe, 2011). It provides a fully integrated solid waste management service, which includes containment, transport and the disposal of waste at several disposal sites. The Department's service delivery mandate includes services to the City's external customers, as well as servicing some of the

needs of the City itself. The municipality of Windhoek, though, is not providing adequate sanitation and water services to informal settlements (Shack Dwellers federation, 2019).

The policy and regulation, however, place responsibility on the municipality to render services in an equitable manner. The achievement thereof is hampered by the financial constraints faced by the municipality. The former mayor, Muesee Kazapua stated that all local authorities and not just Windhoek is financially strained and that there is a need to explore national government subsidies. He added that the lack of funds was hampering service delivery that the national government has been approached for the assistance of R105 Million (Kahuirika, 2017:1).

The financial legislation is prescriptive and expects that the municipality irrespective of financial position deliver services in an equitable manner. For example; the Namibian Finance and Information Technology policy of 2008 states that in accordance with section 86 of the Local Authorities Act (Act 23 of 1992) the City of Windhoek shall ensure that an appropriate financial system is in place and available for all departments to ensure informed decision-making and budget control. The legislation does not take into account the financial or organisational capacity of the municipality to render the services.

While short-term projects, such as the Targeted Intervention Programme for Employment and Economic Growth (TIPEEG) in the past assisted the City of Windhoek in different ways to render services, the non-payment of services puts a strain on already depleted resources. Muesee Kazapua stated that the irony is that government agencies and ministries that are supposed to be setting an example are the main defaulters and are not paying their debts. The resultant effect is that ordinary citizens are following their example of non-payment. The non-payment hampers the City's ability to deliver services, in particular to the poor (Kahuirika, 2017:1).

More than R500 million is owed by residents while government agencies and departments owe more than R105 million to the municipality which ironically is the same amount requested in subsidies (New Era, 2018).

The subsidies are used to service the growing debt and is not expended on what it is intended for. The study investigated the institutional challenges faced by the City of Windhoek in carrying out its constitutional mandate of sustainable provision of basic services in an equitable manner.

1.1 RESEARCH PROBLEM

National and local policies had been formulated to ensure the provision of sustainable service delivery. In this regard, the City of Windhoek adopted policies to guide basic service delivery. Irrespective of previous service delivery, challenges persist and service delivery is not provided in an equitable and sustainable manner. A number of organisational and community challenges seems to be contributing to the service delivery problem. The payment of services is a major issue and negatively impacts the City of Windhoek's ability to provide services. Communities receiving poor services are reluctant to pay for the services and this has a negative impact on the income of local government. More often than not, communities vandalise public property in an attempt to voice their dissatisfaction with poor or non-existent local authority services. Other challenges such as staff morale impact the efficiency and effectiveness of the service delivery. Although the City of Windhoek is legislatively required to deliver basic services to the community, it experiences challenges in giving effect to the legislative mandate. This study's objective is to understand what these challenges are and make recommendations on how to respond to give effect to their mandate of sustainable basic service delivery.

1.2 RESEARCH QUESTIONS

The following research questions were set to investigate the phenomenon:

1. What are the institutional challenges facing the City of Windhoek in providing water and sanitation to the residents of Havana Informal Settlement?
2. What are the legislative and policy frameworks and is it appropriate to guide the City of Windhoek to deliver equitable and sustainable services?
3. What strategies are used to address the institutional challenges impacting the provision of water supply and sanitation to the residents of Havana Informal Settlement in Windhoek?

1.3. RESEARCH OBJECTIVES

The main objectives of the study were:

- To examine the institutional challenges faced by the City of Windhoek in the provision of proper water and sanitation to the Havana Informal Settlement residents.
- To analyse the service delivery of water and sanitation supply to the Havana Informal Settlement residents.
- To explore legislation and policies suitable for the City of Windhoek to carry on with the mandate of service delivery.
- To make recommendations based on the findings to ensure sustainable basic service delivery.

1.4 SIGNIFICANCE OF THE STUDY

The study findings can inform policy formulation regarding the suitable delivery of basic services such as water and sanitation. Local authorities play an important role in the development process of any economy and the City of Windhoek municipality is no exception. A study of this nature is important to ensure that the development agenda is pursued and human dignity is restored. The findings of the study can be used to benefit other local authorities to identify suitable institutional solutions in the planning of effective sanitation and adequate water supply intervention strategies for communities living in informal settlements.

1.5 SCOPE OF THE STUDY

The study investigated the institutional challenges faced by the City of Windhoek in the provision of basic services namely; water and sanitation for informal settlements in Namibia. The study focused on the City of Windhoek and in particular the provision of water and sanitation to the Havana Informal Settlement.

1.6 LIMITATION OF THE STUDY

The study was constrained by insufficient resources to procure research materials such as printing paper for questionnaires to enable the collection of data. The study had been undertaken during the COVID 19 pandemic and this itself posed a challenge for the collection of data.

1.7 ETHICS

Formal ethical clearance was applied for in terms of the University research ethical clearance policy. See Appendix E.

1.8 CHAPTER OUTLINE

Chapter One: General Introduction

Chapter one introduces the reader to the context of the study, it outlines the rationale objective of the study, research questions and the current problem and reasons that underpinned the study.

Chapter Two: Literature study

Chapter two reviews the literature on water and sanitation. Furthermore, it provides an analysis of the legislative and policy framework guiding the provision of water and sanitation.

Chapter Three: Research design and method

Chapter three outlines how the research was conducted and the data collection process. It focuses on the research design, research population, sample size as well as the research instruments that were used to collect data. Lastly, the aspects of validity, reliability and credibility of the research are presented.

Chapter Four: Data collection and analysis

Chapter four presents the empirical results and a thorough discussion of the research findings. It responds to the research questions as posed in the first chapter of this study. The chapter commences with a summary of the quantitative and qualitative results. It specifically presents findings relating to respondents biographical data as well as the remarks and results.

Chapter Five: Findings, Recommendations and Conclusion

Chapter five focuses on the relevant conclusions and recommendations derived from the research findings. It begins by summarising the key findings of the research. Finally, practical recommendations for future development initiatives are provided. The chapter concludes with a brief summary of the overall study.

CHAPTER TWO: LITERATURE STUDY

CONCEPTUALIZING: WATER AND SANITATION DELIVERY

2.0 INTRODUCTION

This section reviews the extant literature on water and sanitation. Furthermore, it provides an analysis of the legislative and policy framework guiding the provision of water and sanitation. According to Bryman (2012) reviewing the existing literature around the topic of research is vitally important because it helps in understanding not only the body of knowledge that relates to the research topic but also in developing an argument about the relevance of the research.

2.1 WATER AND SANITATION REFORM SERVICES AS AN INSTITUTIONAL CHALLENGE

After Namibia's independence from colonial rule in 1990, there was a strong need to abolish the previous administration as it was ill-suited to achieve the transformational agenda of the newly elected democratic government. Part of the policy transformation agenda was to introduce the integrated water resources management policy to address and answer the water challenges prevailing in Namibia (Heyns, 2005).

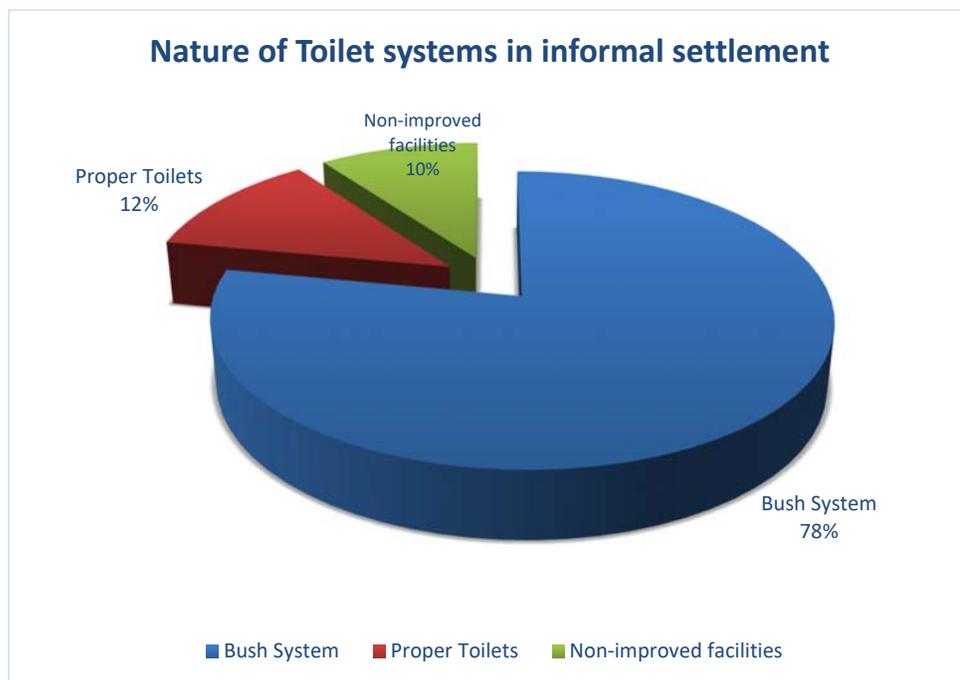
Blacket (2001) state that the development of a new national water policy includes the preparations of legislations, changes to organisational development, regulations and management activities of the water sector within the different Local Authorities. It is important to note that institutional reforms cannot succeed if there are no skills and human capacity within an administration. Although new policies, legislations and organisations are easier to articulate, it is relatively hard for a developing country such as Namibia to advance human capacity that can handgrip reforms when there is a lack of funding involved which in turn creates a backlog between capacity building and resource developments.

Bless and Higson-Smith (2007) stipulate that amongst the challenges facing any Namibia water policy component concerning international water courses is a need to familiarise actual and potential stakeholders at all levels of society, especially at the community level, of the rights and responsibilities of Namibia in the context of shared waters. Patience, a good-spirit and well-informed negotiations are required to reach the necessary compromises between

human requirements, economic priorities, commercial interests and environmental integrity. Infrastructural and human resource capacity is needed to carry out these activities in an effective manner in the country (Cantle, 2010).

The Namibian Statistics Agency (2001) indicated that 78 percent of rural residents still answer to nature's call in the bush. Only 12 percent have access to proper toilets, while 10 percent use non-improved facilities (as shown in figure 1).

Figure 1: Nature of toilet systems in informal settlements



Source: Namibia Statics Agency (NSA, 2001).

While the situation of urban dwellers looks better because 70 percent are estimated to have adequate sanitation facilities, 30 percent still use improper sanitation. The formal urban settlement sanitation challenges are being reduced by the fact that more and more people are migrating to informal settlements assuming it is affordable to live there. With estimates that 73 percent of the population projected at 2.8 million in 2030 will be living in urban settlements. More facilities will be needed to cater for them.

The improvement of water supply will require US\$92 million, while sanitation services will need US\$288 million, for the country to attain the long term goals of Vision 2030 (Namibian statistics, 2001). This is contained in an assessment situation report for the review of the Water Supply and Sanitation Sector Policy (WASSP, 2001), the assessment attributed the poor performance of the sanitation sector to the institutional fragmentation introduced in the sector, which contradicts the objective and recommendation of WASSP.

Mukwena and Drake (2010) state that if a policy is vigorously implemented instead of selectively implemented as the case was during the past 15 years, the sanitation situation will improve, thus reducing health services costs. UNICEF (2006:79) emphasises that inadequate sanitation and water supply, through its impact on health and the environment, has implications for economic development. Water and sanitation directly affect people's health and absenteeism at work increases due to excreta related diseases. Poor health keeps families in a cycle of poverty and loss of income. The national cost of productivity, reduced education potential and curative health care are substantial. One estimate puts the cost of health expenditure at US\$1.5 million per year (MRLHRD, 2006).

The MRLHRD (2006:112) states that the increasing pollution of rivers and shorelines also negatively impact businesses such as tourism and agriculture, which are vital to the nations' economic growth. Lack of 'excreta' management also poses a fundamental threat to global water resources. The Water policy on Basic Household Sanitation highlights the benefits of improving sanitation, reduced morbidity, increased life expectancy and savings in health care costs. The impact on the quality of the water should be carefully controlled through establishing and enforcing standards and management practices.

Discharging waste into the water resources, disposing of waste on land in a manner that impacts detrimentally on the water resources and using of waste on land should be well regulated to ensure that the water resources stay fit for use (Thompson, 2006). To address water pollution the municipality should promote compliance with legal requirements regarding environmental pollution and extend the awareness programmes to encourage residents to act responsibly.

2.2 PROVISION OF SAFE WATER AND SANITATION SUPPLY

UNICEF (2010:79) states that Namibia has preserved water as a constitutional right and not sanitation, but with the aim of promoting health, the United Nations has implemented a legally

binding resolution for safe drinking water and sanitation. The main concern is whether or not these rights are achievable in developing countries that have an ever-increasing population with an economy that is not strong.

Sanitation goes beyond procedural issues, it involves socio-economics, ethical, cultural, psychological and political aspects. According to Namibian statistics (2001), there are no reliable statistics and acceptable sanitation definitions but it is important that individual mindsets are changed in order to find solutions to the current sanitation problem and have a better human rights approach as it requires public participation, governance, science management and the private sector for sustainability.

The MRLHRD (2008) states that Namibia is the driest country in sub-Saharan Africa. Less than 5% of the country is arable due to the low, erratic rainfall, scarce ground and surface water. Freshwater scarcity thus remains a major environmental challenge in Namibia. Although the National Development Plan (NDP) target of providing 95% of the population with sustainable access to safe water has been reached, sound water management ensuring social, economic and environmental benefits remains high on the agenda.

Scarce water resources have to be shared between the growing population, an increasing number of livestock and crops, and an expanding industrial sector. Water supply is a major challenge in Namibia, especially in the rural areas, the water supply infrastructure has to be maintained, facilities have to be managed, and fees are to be collected to organise the water supply. In this sense, appropriate policy, legislation and regulation are of great significance (Hanson, 2007).

Hardoy, Mitlin and Satterthwaite (2019) stress that Namibia is struggling to cope with its sanitation problems. The country has the lowest levels of sanitation coverage in southern Africa, a situation that has not improved since 2006. In addition, close to half of all Namibians practice open defecation, a rate that is one of the highest in Africa, just behind Somalia and South Sudan. Inequities in access to proper sanitation facilities are also glaring between rural and urban areas. In fact, the majority of people in rural areas have no choice but to defecate in the open, a practice that is highly unsanitary and harmful to health.

According to Thompson (2006:209), open defecation causes cholera, typhoid, hepatitis, polio, diarrhea, worm infestation, reduced physical growth, impaired cognitive function and

malnutrition. Thompson (2006) further states that young children pay the price for poor sanitation. When they drink contaminated water, they get sick and then quickly malnourished. In Namibia, 17 per cent of children under 5 suffer from diarrhea and repeated episodes of diarrhea contribute to the country's high levels of childhood stunting UNICEF (2019:79).

Communities play a critical role in improving sanitation and adopting hygiene habits that save lives. A UNICEF supported research in 2013 and 2014 show that communities in Namibia have not been adequately involved in improving sanitation in their areas despite the existence of the National Sanitation Strategy that encourages community participation in finding sustainable solutions UNICEF (2019:79).

In addition, hygiene and sanitation promotion activities, based largely on disseminating health information, have also failed to deliver sustainable hygiene behaviour change. The MRLHRD (2006:112) argue that a change of tactic is needed in behaviour change communication one that engages communities as partners in sanitation delivery hence investing in sanitation services and adequate water supply is a key element in improving urban living conditions, spurring rural development and reducing future costs associated with pollution, poor water quality and waste management.

The United Nations International Children's Emergency Fund UNICEF (2012:36) and the World Health Organisation WHO (2012:76) present the benefit of investing in sanitation such as; reduced morbidity, mortality and increased life expectancy, savings in health care costs, higher worker productivity, better learning capacities of school children, increased school attendance especially by girls, strengthened tourism and national pride, the direct economic value of high-quality water such as irrigation water for crops, and reduced water treatment costs.

Sanitation systems involve the disposal and treatment of wastes and a lack of adequate sanitation system constitutes a range of pollution risks to the environment, especially the contamination of surface and groundwater resources. This, in turn, increases the cost of downstream water treatment as well as the risk of disease for people who use untreated water Kumar, Shigeo and Harada (2009).

The MRLHRD (2006:121) states that the effects of the pollution include: waterborne diseases, blue-baby syndrome in bottle-fed infants, excessive growth of aquatic plants which are toxic and depletion of oxygen in the water. Inadequate sanitation facilities and water

supply, inadequate disposal of waste and poor sanitation practices result in loss of privacy and dignity, exposure and increased risks to personal safety (UNICEF, 2010). People are also forced to use the bush as their toilet facility. They are exposed to dangerous situations where they can be assaulted or attacked by wild animals.

Studies in the water sector describe policy changes with regard to water resources to bring out water institutional reforms as largely ‘a response to the emerging crisis in water resource development, allocation and management’ (Saleth & Dinar, 2005). The crisis, partly, has arisen because of the failure of the existing institutional arrangements to cope up with the emerging situations of water scarcity and the increased demand for both quantity and quality of water. Often factors outside the purview of the water sector, such as population pressure, economic development, economic and political reforms, etc. have all contributed to the crisis in water governance, resulting in greater pressure for inducing institutional reforms in the water sector.

The provision of safe water supply and improved sanitation constitute an important component of the water sector governance. The linkages between health, education, poverty eradication on the one hand, and better water supply and sanitation facilities on the other accelerate the seriousness of the problem. The prevailing crisis with respect to these facilities in terms of limited coverage and poor access builds sufficient ground for changes in the policy concerning water and sanitation. Further, the commitment to the Millennium Development Goal (MDG) has resulted in putting additional pressure by the international development organisation on the national governments to come out with suitable policy changes to meet the targets of MDGs concerning water supply and sanitation (Saleth & Dinar, 2005).

2.3 THE CITY OF WINDHOEK INSTITUTIONAL SERVICE DELIVERY

Access to safe water and sanitation is a human right as declared by the United Nations. In carrying out their humanitarian mandate in alleviating and improving the condition of the vulnerable populations of the world, both in ordinary times as well as in emergencies, the International Federation of Red Cross, Local Authorities, individuals and societies are

increasingly involved in the provision of water and sanitation services as part of the overall health and care interventions (UNICEF, 2010).

Articles 102 and 111 of the Namibian Constitution empowers the parliament to enact legislation relating to local authorities. Furthermore, Article 102 (3) of the Constitution states that every organ of the regional and local government shall have a Council as the principal governing body, freely elected in accordance with, the Constitution and the Act of Parliament referred to in 13 Sub-Article (91) hereof, with an executive and an administration which shall carry out all lawful resolutions and policies of such Council subject to the Constitution and any other relevant Laws (Republic of Namibia, 2000).

Furthermore, the Local Authorities Act, (Act No. 23 of 1992), as amended, provides for three types of local authorities, namely; municipal councils, town councils and village councils. It is at those local institutions that economic opportunities are identified and harnessed using Local Economic Development strategies. Local authorities are the third tier of government and their powers, duties and obligations are set out in detail under Section 30 of the Act. The main function of a local authority is service delivery, that is, provision of water, to maintain and operate a sewerage system, the provision of streets and public places and the supply of electricity, and thereby the development of the respective towns among others.

The Local Authority is also responsible for all major borehole repairs. Communities must contact the municipality and responses typically take a minimum of one month. As such, communities in need of repair often go without adequate water supply for extended periods. Mitullah (2008), states that while the City of Windhoek municipality has rehabilitated some boreholes, they are not regularly maintained. The quality of the water they provide is neither monitored nor treated. The Department of Infrastructure, Water and Technical Services manages the water supply of Informal Settlements. NamWaters' policy mission regarding water quality is to ensure the continuous fitness for use of all water sources throughout the country. Communities appoint one member to be a caretaker to facilitate borehole maintenance. He or she is responsible for minor repairs and the municipality is obligated to provide training to these individuals. However, an educational gap has developed. Often, community members with proper training move and new residents do not receive formal instruction. A major challenge in many rural communities is the pollution of the water supply. These isolated

communities rely heavily on groundwater as their primary water source. Recent fieldwork identified that livestock and community impacts are the cause of pollution (Simataa, 2010).

Okpala (2009) further confirms that water pollution is one of the greatest challenges facing the City of Windhoek. People put all kinds of harmful and unpleasant substances in the water because it is considered an easy way of getting rid of refuse. It consequently takes a lot of effort and money to purify the water. Among other things, heavy industrial activities contribute to the pollution problem. Industrial waste, such as acid, heavy metals and other toxic material may flow into the water treatment plant. It affects the quality of the water and ecosystems (Okpala, 2009). Mitullah (2008) states that pollution causes problems for water users. It kills water plants, animals and makes water unfit for human consumption. The extent of water pollution by the residents seems to indicate that the management systems followed by the local authority do not provide for management of environmental impact as an integral part of their operations. In contrast to biological pollution, this can transmit serious diseases such as cholera, diarrhea and typhoid that erodes the health of communities, chemical pollution of industrial activities is toxic and therefore highly dangerous to human health. Eventually, pollution is the result of inefficient water management practices (Mitullah, 2008).

Mukwena and Drake (2010:328) further state that one of the causes of the country's scarce water resources is industrial activities. Industrial activities disturb established drainage patterns, often causing waterlogging and erosion. Equally significant is surface and groundwater contamination through runoff and drainage from mine residue deposits (Mitullah, 2008).

Moreover, community involvement is critical in establishing feasible water and sanitation management policies. Isolation in itself poses many problems for the communities and limits many potential solutions. Basic services such as transportation, water, communication, and electricity are severely limited in these communities (Okpala, 2009).

The Millennium Development Goals (MDGs) would require Namibia to halve, by 2030, the proportion of people without access to safe drinking water and basic sanitation. The government suggests Namibia could achieve complete access to water and sanitation in the next decade or so in urban and rural areas if funding is made available. Since fresh water is essential for water supply and sanitation, an examination of the freshwater situation in Namibia is required. Freshwater availability is uneven across Namibia, and huge disparities

exist, from basin to basin, region to region, and in many cases, even within the capital city (Heyns, 2005).

Haindongo (2017) state that the City of Windhoek (CoW), like other municipalities and town councils in Namibia, has also developed its Local Economic Development (LED) Strategy which aims to align the City of Windhoek's objectives and projects with those of the National Government as indicated in Vision 2030. In general, LED aims to build up the economic capacity of local authorities to improve its economic future and the quality of life for all. It offers the local government, private and non-governmental organisations and local communities the opportunities to work together to improve the local economy (MRLHRD, 2011).

Despite these efforts and strategies, Haindongo (2017) further state that the role of various stakeholders in enhancing LED to address socio-economic challenges in the City of Windhoek seems not to be well defined. In fact, issues such as housing affordability and to some extent homelessness, financial and capacity-related challenges are visible. It is also clear that the local government as the sphere of government closest to communities has a number of institutional challenges.

The challenges include among others the shortage of critical skills, weak governance arrangements, and administrative and political dynamics that affect the council adversely. In some cases, such limitations can lead to a point where councils are unable to perform their constitutional duties as expected, including the delivery of basic social and economic infrastructure (Haindongo, 2017).

Partnerships according to Urban Trust of Namibia (2007) the major principle upon which Vision 2030 is based and is recognised as a major prerequisite for the achievement of dynamic, efficient and sustainable development. This involves a partnership between the government, communities and civil society, a partnership between different branches of government, with the private sector, non-governmental organisations, community-based organisations and the international community; a partnership between urban and rural societies and, ultimately between all members of the Namibian society.

Developing local partnerships will enable municipalities to achieve much more locally with their resources, and at the same time to identify and leverage additional resources for

development. Municipal partnerships seek to develop a linkage between various local role players and stakeholders that have an interest in LED to ensure that the process is successful and sustainable (Urban Trust of Namibia, 2007).

Swinburn and Tijnstra (2006) point out that residents must be fully involved in the local development process if a successful LED is to be implemented. This is because the above mentioned will legitimise the process and de-politicise LED projects and ensure long term sustainability. Therefore, a practical developmental agenda must be adopted by the community. The agenda must focus on realistic and sustainable goals, long term plans and small, visible achievements by involving people; this is key to empowerment.

The Department of Provincial and Local Government (2005) states that the incorporation of the low-income and informal economy groups and associations into the local leadership process is important as they have a greater understanding of local economic issues.

Swinburn and Tijnstra (2006) argue that the private sector/businesses have a key role to play in LED as they can increase the understanding of the local economy. They have a deeper knowledge of local economic issues and are more likely to be more informed about local problems and opportunities that can be addressed by the LED strategy. Swinburn and Tijnstra (2006) further recognise the importance of cooperating with the government and civil society. Civil society should organise itself to participate appropriately in building the economy by cooperating with the government to create a favourable climate for investment.

2.4 ACHIEVING PROVISION OF WATER AND SANITATION

According to (Thompson, 2006), the challenge of delivering water and sanitation to low-income communities requires a collaborative approach that draws on the knowledge and experience of cities, communities, governments, and the formal and informal private sector, and external support agencies. The key to a successful strategy lies in the capacity of practitioners working in the water and sanitation sector to innovate and to adapt solutions to address local constraints and opportunities.

Zulu (2011) states that Rural-urban migration in Africa urbanizes faster than any other continent. For example, between 1990 and 2025, the total urban population is expected to grow from 300 to 700 million; and by 2020, it is expected that over 50% of the population in African countries will reside in urban areas. This increase will pose further challenges to

stakeholders in providing adequate sanitation services to informal settlements in the cities. Therefore, necessary interventions by relevant stakeholders are needed to find medium to long-term solutions to the problem. Concisely, keeping up with the rapid pace of urban population growth will remain a key challenge to water and sanitation service providers in urban areas.

The WHO (2006) states that the Millennium Declaration and the Millennium Development Goals (MDG), which has an international commitment to reduce poverty over the next decade, also highlights the aspects of safe drinking water supply and improved sanitation. The Target 10 of MDG 7 specifically calls for reducing by half the proportion of people without access to safe drinking water and improved sanitation by 2015. To meet the MDG drinking water target, another 1.1 billion need to gain access to safe drinking water from 2005 to 2015, and 1.6 billion need to gain access to improved sources of sanitation to meet the sanitation targets.

The Joint Monitoring Programme (JMP) of Water and Sanitation by WHO/UNICEF estimates that it will require roughly a doubling of efforts of the past 15 years to reach the MDG sanitation target, and one-third increase in efforts to meet the MDG drinking water targets, which corresponds to providing improved sanitation services to an additional 45 thousand people a day, and safe drinking water services to an additional 300 thousand people a day from 2005 to 2015 (WHO, 2006).

Achieving the target would require infrastructure and maintenance of existing and future infrastructure from falling into disrepair as a result of inadequate institutional arrangements, insufficient cost recovery, poor operation and maintenance and sound management practices. In other words, it requires accelerating the whole cycle of service delivery, comprising policy-making, mobilisation of resources, planning and design, construction, operation and maintenance, with a focus on poor and un-deserved people.

2.5 PREVIOUS FINDINGS IN ACHIEVING PROVISION OF WATER AND SANITATION

This raises a pressing need to understand the nature and magnitude of the issues affecting sanitation provision in order to find more cost-efficient and sustainable sanitation alternatives to address them. Innovative decentralized sanitation and re-use systems were developed partly in opposition to centralised ones and there have been claims that they are

more robust, cheaper and better able to effectively deal with environmental challenges (Sano, 2009).

Whichever technologies are used, they must be context-appropriate and cost-effective to the low-income dwellers (Annecke, 2010). However, no research has been undertaken on how current on-site problems can be solved by the use of other on-site or 'mixed' technologies that match the context of informal settlements.

UNPFA (2007:54) states that a new urban development policy that engages with urban governance, community participation and decentralisation is required. This would involve reviewing all policies that relate to health and housing, in order to determine whether they address the needs of all urban residents and are promoting equity. Importantly, their effective implementation must be monitored and action taken by the local government to address the challenges. The national government is addressing the challenges that poor urban migrant groups experience in their ability to claim their rights to health care and housing.

Winderfelt (2006) echoed similar solutions by stating that it is essential that action is taken to improve the environmental conditions of urban informal settlements that negatively affect the health outcomes of those residing there.

The local government is required to engage with actions that are beyond its mandate through an intersectoral approach that encompasses healthy urban governance and public health advocacy. The local government should mobilise actors within other spheres of government and civil society to take appropriate action. Importantly, this identifies the need to implement a 'social determinants of urban health' approach within all policy and programming initiatives (Wheaton, 2009).

The enabling environment should change so that investments in sanitation and hygiene promotion are consistently more effective. In many countries or regions, the sort of high-level changes which are required (in policies, financial instruments, organisational arrangements and so on) may require changes to legal and regulatory instruments, even if this is not required, for such changes to be translated into reality they have to be widely owned and accepted. For this reason, such systematic changes may have to develop slowly. In the meantime, programmers may have to find pragmatic ways of making progress on the ground. Within each country context, the key to a successful strategy lies in the capacity of practitioners working in municipalities to innovate and to adapt solutions to address local constraints and opportunities (Sano, 2009).

The State of the World's Cities Report (2001) states that policy development further needs to be based on a good understanding of the basic situation (population, coverage, investments, health status; institutional contexts (including the performance of service providers) how people are currently accessing services; what works (even on the small scale locally); and what has potential to be scaled up. Importantly, there is no point in developing policies that are beyond the capacity of the current institutional setup.

Although policy is needed to improve current performance in the short run and to create incentives to strengthen the over-all institutional context in the longer run. Namibia Housing Action Group (2008) states that at the highest level though, a thorough review and overhaul of sanitation and hygiene promotion policy has been rare.

The World Health Organisation (2013) found that only two countries (South Africa and the Democratic Republic of Congo) included hygienic practices in their definition of access to "improved sanitation", an indicator in its own right that policies are not yet dealing with hygiene improvement.

Mwanyengange (2013:80) notes that future research should implement a pilot project to evaluate the effectiveness of the application of concept mapping' to assist local level urban health policymakers and planners in developing an 'urban health plan' to respond to the interlinked challenges of migration and informal settlements in a context of service delivery.

2.6 POLICY AND LEGISLATIVE FRAMEWORK

Heyns (2005) describes a policy as a "Commitment" or a "Statement of Intent". Buyera (2012) further defines the term policy as a guide of action. A policy promotes sustainable water utilisation through suitable pricing, promotion of water-efficient technology, public information and awareness programmes. Information sharing and co-operation between parties, the promotion of wastewater re-use and active support of research and data gathering on water conservation is of utmost importance. Provision through legislations is made for subsidies to those who cannot afford to pay the full costs of water, however, not all communities who cannot pay receive subsidies (MRLHRD, 2006).

2.6.1 The National Water Policy

The Water Supply and Sanitation Policy (WASSP) of 2008 is the main policy regarding water use and conservation in Namibia. This policy replaces the National Water Policy of 1992. Its

principles are in line with the Integrated Water Resources Management plan, including a strong focus on water demand management. Generally, it aims at ensuring equitable access to water resources sufficient to maintain life, health and productive activities of citizens (MRLHRD, 2006). It further emphasises that under this policy Government is the custodian of all water resources and has the right to control all water use and disposal. Integrated supply and demand planning is required in both the short and long term.

According to Wienecke, Atkinson and Botes (2017), ecosystem values and sustainability is included in the national water policy that states that water resources management must complement the human consumption requirements. Strategies put in place to safeguard environmental and cost-effective sustainability are to, “ensure that in-stream flows are adequate both in terms of quality and quantity to sustain the ecosystem”. The water policy also stipulates that “the legislation provide for determining an environmental water reserve for clean water sources before it can be used to supply other demands such as domestic and subsistence use”, although the new Water Act does not mention the environmental flows. It is important for legislation to stipulate the extent to which it will be assimilated within the Namibian policies, development plans and the legislation.

According to Keyter (2001), Public-Private Partnerships (PPP) are considered a crucial tool in assisting the government with development. In many countries, it has assisted government, economies and added links between the two. Decision-makers are urged to consider the policy framework and the legislative put in place to improve service delivery. This policy framework and the legislation applies to Local Authorities in Namibia in order to improve service delivery using the Public-Private Partnership. Different legislative and policy framework should be examined before they can be considered depending on the service rendered. Keyter (2001) further states that the legislation will to a large extent benefit the Public-Private Partnership, although, within the Namibian environment, the purpose of this partnership would be for effective service delivery of local authorities.

Wheaton (2009) states that in 2002 a National Water Policy White Paper that formed the basis for the Water Resources Management Act was approved by the national government of Namibia. The policy provides a framework for equitable, efficient and sustainable water resources management and water services. It clearly states that water is an essential resource to life and that an adequate supply of safe drinking water is a basic human need. The policy makes it clear that water concerns extend beyond human needs for health and survival, also

recognising that water is essential to maintain natural ecosystems and that in a country as dry as Namibia, all social and economic activity depends on healthy aquatic ecosystems.

Wheaton (2009) further states that the National Water Policy includes a basic principle titled “Ecosystem values and sustainability” which stresses that the management of water resources needs to harmonise human and environmental requirements, recognising the role of water in supporting the ecosystem. One of the strategies provided to ensure environmental and economic sustainability is to ensure that in-stream flows are adequate both in terms of quality and quantity to sustain the ecosystem.

The new Water Policy was developed to guide water resources management in Namibia. It is based on the country’s physical and climatic setting, particularly its aridity, the legacy of the pre-independence era and current trends in the development, specifically relating to Namibia’s water resources management (MRLHRD, 2006). The policy further recognises the need for inter-sectoral coordination between all stakeholders involved in using and managing water resources. The Policy recognises the need to promote the equitable and beneficial use of international watercourses based on generally accepted principles and practices of international law. This realisation originated from the 1974 Water Master Plan that identified the need for Namibia to negotiate for access to shared perennial rivers to complement the internal water sources (MRLHRD, 2008).

The MRLHRD (2011) states that the policy proposes to protect water resources from pollution by enforcing the ‘polluter pays principle’ and regular water quality monitoring on all proposed projects. Furthermore, it proposes to improve knowledge on the vulnerability of critical wetland ecosystems and to develop strategies for their effective management. Two clauses within Sections 2.3 on Water Use and Conservation Principles and 2.5 on Legislative and Regulatory Principles are particularly relevant to shared water resources.

Precautionary environmental protection stipulates that the resource base shall be protected against any kind of contamination or pollution that would render any part of it unfit for beneficial human, economic and environmental purposes applying the precautionary principle. Factoring environmental considerations in decision making, the need to protect the environment in general, and the aquatic ecosystems in particular, including their biodiversity and the nation’s wetlands will be factored into the allocation of water resources for use and will include the prior assessment of the environmental impacts of proposed water uses.

The totality of the principles found in Namibia's policy framework for water resource management satisfies the criteria for sustainable use of shared watercourse systems and principles found in international law instruments that Namibia is party to and provides sound guidelines for future legislation and regulations (MRLHRD, 2011).

The basic principles used in Namibia's National Water Policy, which are intended to provide a framework for the development of all water-related policies, have been adapted for the Wetlands Policy in order to complement existing national policy instruments relevant to sustainable development and sound natural resource management and to help meet the national commitments as a signatory to the SADC (Southern African Development Community) Protocol on Shared Watercourse Systems, NEPAD (New Partnership for Africa's Development), several regional water commissions on shared river courses, the Ramsar Convention, the UNCBD (United Nations Convention on Biological Diversity), the UNCCD (United Nations Convention to Combat Desertification) and the UNFCCC (United Nations Framework Convention on Climate Change).

2.6.2 The Water Act No. 54 of 1956

This Act makes provision for amendments and consolidation of laws relating to the usage of water for agricultural, domestic, urban and industrial purposes. It provides control for activities in certain aspects such as the use of seawater for certain purposes and the extension or establishment of townships in certain areas (MRLHRD, 2009)

This rather outdated legislation remains in force until the new Water Resources Management Act comes into force upon signing by the Minister. Although two new Water Resources Management Acts have been approved by Parliament, the first in 2004 followed by the approval of the recent Water Resources Management Act in 2013, neither of them has been signed into law (MRLHRD, 2009).

The 2004 Act has never been signed into law and has been repealed as a whole by the 2013 Act, which is yet to be signed by the Minister to become operational. Thus, the 1956 Act remains applicable for the time being. The private-public water dichotomy might be unconstitutional in the current constitutional dispensation because whereas the Act provides for private and public water, the Constitution regards natural resources as common resources thus they constitutionally belong to the state unless otherwise lawfully owned. Considering that

all water is controlled by the state under the public trust doctrine emanating from Article 100 read together with schedule 5 of the Constitution all water can be regarded as a common resource hence public. The Act, however, has some balancing provisions whereby the Ministry of Agriculture, Water and Forestry (MAWF) has the power to control the amount of water to be used by a person who has private water rights.

In connection to this in terms of Section 21, the Minister has the power to order a person to purify water he has contaminated. A person can, however, apply for an exemption from this duty and the Minister has to use his/her powers to consider whether to grant the application or not. This Act gives the Minister the power to investigate water resources, plan water supply infrastructure, develop water schemes, control pollution, protect, allocate and conserve water resources, inspect waterworks, levy water tariffs and advise on all matters related to the water environment in general. It makes the Department of Water Affairs, in MAWF, responsible for the use, allocation, control, and conservation of Namibia's surface and groundwater resources.

2.6.3 The Namibia Water Corporation Act No. 12 of 1997

The Namibia Water Corporation Act establishes the water utility company, NamWater, and places an obligation on NamWater to conduct its functions in an environmentally sustainable and sound manner, and specifies a duty to conserve and protect the environment. It should conduct all activities with due regard for the protection and conservation of ecological resources and habitats. Water is allocated through a permit regulatory system and NamWater is entitled to apply for a permit to impound surface runoff in ephemeral rivers, and to abstract water from perennial rivers as well as groundwater. The Act was amended by the Water Resources Management Act No. 11 of 2013.

2.6.4 The Water resources Management Act No. 24 of 2004

The 2004 Act was based on the National Water Policy and provided for the management, development, protection, conservation, and use of water resources. The Act introduced equitable access to water resources for all population groups in Namibia. It provided an integrated, enabling legislative framework within which Namibian water resources could be managed, and water services are provided. The objective of the Act was to ensure that Namibia's water resources are managed, developed, protected, conserved and used in ways,

which are consistent with or conducive to certain fundamental principles set out in section 3 of the Act.

The Act has been approved and published in the Government Gazette; however, it has never come into force. Instead, it has been amended to take into account certain practical aspects of its implementation and was repealed as a whole by the Water Resources Management Act No. 11 of 2013 for the purpose of comparison.

The Act was provided for the establishment of Water Point User Associations at the community level, consisting of those rural community members who permanently use a water point. Their function was defined as to operate and maintain the water point in question and to make decisions about water use regulations. The Act provided for a Water Point Committee to monitor and enforce compliance with such regulations and for the establishment of a Water Resources Management Agency as well as a Basin Management Committee to manage water resources sustainably.

The Act provides for the establishment of a Water Advisory Council in part three to advise the Minister on issues such as water policy development and review; water resources management; and water abstraction and use. The Water Advisory Council is established upon nomination and “consists of 11 members who are persons with extensive knowledge and experience in water resource management and from authorities or institutions responsible for or involved in water supply or water management.”

Furthermore, a Water Regulator consisting of five members is to be established under the Act, to determine the tariffs of fees and charges that may be levied by a water services provider or that are payable by licenced holders for the abstraction of water or the discharge of effluent or the supply or reuse of effluent. The Water Regulator also performs other functions with regard to water service providers, which have to be licenced according to the provisions in part ten of the Act.

Since 1990 the government has recognised the crucial role of sustainable management, the policy and legislative framework for the water sector has not changed significantly since the Water Act of 1956, except for the recent commercialisation of bulk water supply. Virtually the only legislation referring to sustainable water use at present is the Namibian Water Corporation

Act of 1997, which requires that water is used sustainably, with exceptions requiring specific Ministerial approval and publication in the Government Gazette (Heyns, 2005).

NamWater, a government parastatal (responsible for bulk water supply) that began operating in March 1998, aims to put water supply on a commercial footing and to ensure that water use is sustainable. In the past, there has been a strong supply orientation which has been reinforced by extensive subsidies. NamWater is aiming for full historic cost recovery (both as a policy and within the powers given to it by the Act within five years. It will also have to be financially viable in such a way as to be able to raise money for future investments in water infrastructure.

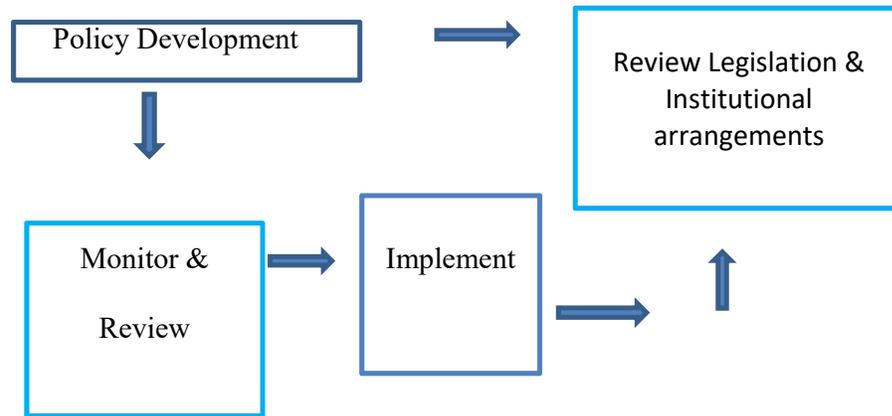
Senyakoe (2011) states that due to the absence of programmes implementing the sanitation policy in the past and insufficient sanitation facilities in rural and informal settlements residents are compelled to defecate in the 'bush' as there are no alternatives. The result of this action has caused contamination of veld, and water sources such as wells, ponds and the Oshanas (ill-defined stream channels in northern Namibia). These water sources are also used for fishing, swimming and as a source for domestic consumption for the household and livestock.

Contamination could lead to the possible spread of diseases although no research in Namibia is available to either prove or disprove this. The government has acknowledged the need for both a rural and urban strategy to address the water sanitation problem in Namibia. Hence, the latter is used to understand and provide explanations for the differences between the Acts and Regulations of water and sanitation.

2.7 CONCEPTUAL MODEL

The model below shows how the water sector reform should be an ongoing process. Policy development is a dynamic activity that needs to take account of changes in society and technology. The development of policy needs to follow through into a review of current legislation and institutional arrangements if the policy is to be implemented. Legislation and the general regulatory environment must enable the policy to be implemented.

Figure 2: The conceptual model of the policy formulation process



Source: Millennium Development Goal's (MDG, 2015).

2.8 SUMMARY

This section reviewed the relevant literature in investigating the institutional challenges faced by the City of Windhoek in the provision of water and sanitation services. The section has further provided solutions or measures to combat these challenges. It has also allowed a basis for this study to proceed. Finally, this section presented the literature review of the topic under discussion.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 INTRODUCTION

This chapter outlines how the research was conducted and the data collection process. It focuses on the research design, research population, sample size as well as the research instruments used to collect data. Lastly, the aspects of validity, reliability and credibility of the research are presented.

3.1 RESEARCH DESIGN

The suitability of a research design depends on the type of study and the data to be collected. Creswell (2008) acknowledges two main research designs; quantitative and qualitative. Describing the two research designs, Creswell (2008) notes that the distinction between the two research designs is framed in terms of using words for qualitative and using numbers for quantitative. Concurring with Leedy and Ormrod (2010) who further distinguish quantitative and qualitative research design by referring to data-gathering instruments. Quantitative research normally uses structured questionnaires while qualitative research collects data through interviews and observations.

Since this study focused on the institutional challenges facing the City of Windhoek in the provision of water and sanitation services, the most appropriate research design was the mixed method research strategy where both qualitative and quantitative methods were used. A qualitative study is based on an insider's perspective of the phenomenon being studied. Furthermore, it is a collection of real-life experiences of the topic being studied. Supporting the suitability of the qualitative approach, Creswell (2009) and Leedy and Ormrod (2010) point out that it provides a quantitative description of opinions of a population by studying a sample of that population.

3.2 PROPOSED POPULATION

The population is defined as individuals in the universe who possess specific characteristics which are of interest to the researcher (De Vos , 2002). In this study, the population was made up of the residents of Havana Informal Settlement (Windhoek) using a systematic sampling technique on every third house. Furthermore, the informal settlement dwellers were important because they are affected by the lack of basic service delivery. The officials from the Windhoek municipality formed part of the stratified sample because they would be able to explain what the challenges were that prevent service delivery.

3.3 SAMPLING PROCEDURES

The researcher selected 10 participants deemed to be information-rich at the City of Windhoek municipality, mainly under the Department of Infrastructure, Solid Water and Technical Services and 15 council members to examine the institutional challenges facing the City of Windhoek in the provision of water and sanitation services;

Purposive sampling in this regard is key in accessing individuals who, by the virtue of their professional roles, power and or experience possess in-depth knowledge about a particular topic of interest (Cohen, 2007). Additionally, convenient sampling will also be used. As the name suggests, this technique entails picking respondents who are easily available, willing and ready to participate in the study. In the case of the Havana settlement, a sample of 35 adults between the ages of 20 and 50 were interviewed, because they are the residents and have sufficient knowledge on the services lacking in their community.

On the other hand, a sample of 10 employees from the City of Windhoek was interviewed since they are responsible for the services and have the required knowledge on the challenges faced by the institution. Finally, the council members from the City of Windhoek municipality which is the highest decision-making body were interviewed since they possess authority over all administrative affairs in the municipality. The council members devote their official time to address problems of basic policy and act as liaisons between the City and the general public. The council members are not only entrusted with the conduct of daily affairs, but also with the future development of the city.

3.4 RESEARCH INSTRUMENT

Data were collected using questionnaires, to gain information on the institutional challenges faced by the City of Windhoek in the provision of water and sanitation services. Data were collected using three (3) basic instruments namely; a semi-structured questionnaire with both open-ended and closed-ended questions focusing on 35 respondents from the Havana Informal Settlement, a semi-structured interview with a few open-ended questions for the City of Windhoek respondents and observations. Primary data were collected through a questionnaire based on the Likert scale which is the most widely used (Maree, 2011:166). The Likert scale questionnaire provides ordinal measures of a respondent's opinion on how strongly they agree or disagree with a particular phenomenon.

Kruger and Wellman (2008) state that questionnaires are data collection techniques in which the respondents respond to the number of items in writing. The questionnaire is designed in such a way that it helps both the City of Windhoek officials and the informal settlers to find solutions in providing sanitation for the informal settlements with the data collected from this questionnaire. The questionnaires were administered to the selected adult residents of the Havana Informal Settlement. The questionnaire consisted of two sections; 1 and 2. Section 1 collected information on the respondents' biographical data (gender, age, and how long the respondents lived there). Section 2 focused on answering the research question posed.

The questionnaire also consisted of a clause guaranteeing that the identity of the respondents would remain anonymous and the information provided would strictly be kept confidential and would not be used for any other purpose apart from its intended purpose. The second instrument is a semi-structured interview used to obtain information from the City of Windhoek officials. The observation was used to collect data regarding the phenomenon researched (Oyedele, 2005).

Observation was done on the availability and accessibility of physical sanitation infrastructures like safe drinking water, toilets, garbage collection at Havana Informal Settlement. Lastly, Primary data was used to gather information through structured questions answered by "Vital informers" in this case the City of Windhoek official.

3.5 DATA COLLECTION

The study was qualitative and used the case study approach. Commenting on the suitability of the case study approach, Leedy and Ormrod (2010) view the case study approach as an excellent vehicle to measure the opinions of different people. In the case study, a sample of respondents was selected as explained above from a population and a standardised questionnaire administered to them.

The approach aims to ensure that each interview is presented with the same questions in the same order Maree (2011). In this case, a structured questionnaire was distributed to the residents of the Havana Informal Settlement on the Institutional Challenges facing the City of Windhoek in the provision of water and sanitation services. With limited time and resources at the disposal of the researcher, the questionnaires were administered as they are less costly and saves time. Also by presenting the respondents with the same questions and in the same order, the approach ensures that responses can be reliably aggregated and that comparisons can be made amongst the respondents' opinions. For practical reasons, the questionnaire was easy to administer.

3.6 DATA ANALYSIS

The broader meaning of research data was sought. In this method, the researcher compared the results and the conclusion drawn from the analysis. The structured interview helped in drawing conclusions from the results and analysing the perceptions of the respondents. Due to time resource limitations at the disposal of the researcher, the questionnaires were less costly and time-consuming. Also by presenting the respondents with the same questions and in the same order, ensures that responses can be reliably aggregated and that comparisons can be made amongst these residents' opinions. Since this study used both the quantitative and qualitative approach, it interpreted and analysed the data obtained using computer software known as SPSSv20. The qualitative data was analysed using descriptive techniques.

3.7 VALIDITY, RELIABILITY AND THE CREDIBILITY OF DATA INSTRUMENT

Every measuring instrument possesses certain qualities. Therefore, the three most common technical concepts in measurement are validity, reliability and credibility.

3.7.1 Validity

Welman and Kruger (2010:223) define validity as indicating the extent to which an instrument measures the construct that it is aiming to measure.

3.7.2 External validity

The external validity of data was used to maintain the reliability of data. External validity is the extent to which the results of a study can be generalised to other situations and other people involved. External validity refers to the extent to which the results received from a sample may be generalized to the population to which the research applies Bless and Higson-Smith (2007).

In order to ensure external validity, the research followed the steps below:

- The names and other identities of the candidates remained anonymous; in this way, more accurate and true information will be obtained.
- The researcher obtained permission from the Councilor of Samora Machel Constituency to conduct research in the Havana Informal Settlement and the Human Resource Manager of the respondents from the City of Windhoek so that the respondents would not experience any fear or uneasiness.

3.7.3 Reliability

Reliability is the degree of consistency between two measures of the same thing (Mehrens & Lehman, 2007). Reliability also refers to the degree to which the independent administration of an instrument will yield a similar or the same result under a comparable situation. In order to guarantee reliability, the researcher ensured the completeness and accuracy of documents such as; interviews, observations amongst others and to be clear about the data analysis process.

3.7.4 Credibility

Bless and Higson-Smith (2007:123) state that since the purpose of qualitative research is to describe or understand the phenomena of interest from the participants' eyes, the participants are the only ones who can legitimately judge the credibility of the results. The “truth” of the findings, as viewed through the eyes of those being observed or interviewed and within the context in which the research is carried out. In order to ensure credibility, the research will depend on the participants training, experience, track record, status and presentation of self.

3.8 ETHICAL CONSIDERATION

According to De Vos (2002) ethics are sets of moral principles which are suggested by an Individual or a group they are subsequently widely accepted and other rules and behaviour expectations about the most correct conduct towards experimental subjects, respondents, sponsors, other researchers, assistants and students before conducting the research. The researcher requested permission from the participants to carry out the research. Therefore, the researcher informed the participants of the activities of the study beforehand. This allowed the participants to make their own decisions and to participate voluntarily.

Maree (2011) emphasises that all participants must be aware that they are participating in a study, be informed of all the consequences of the study and consent to participate in it. Therefore participants completed and signed informed consent forms. (Maree, 2011) state that research should never injure the people being studied, regardless of whether they volunteer for the study. Therefore, the research minimised the risk that no harm would come to the participants from the study.

Perhaps the clearest instance of this norm in practice concerns the revealing of information that would embarrass them or endanger their home, lives, friendship, jobs, and so forth. Leedy and Ormrod (2010) further state that, research participants can be harmed psychologically in the course of a study and the researcher must be aware of the often subtle dangers and guard against them. All the information was treated as confidential and there was no judgement of the respondent's views. There was a need to observe privacy/anonymity/confidentiality. Leedy and Ormrod (2010) emphasise the protection of participant's identities as the clearest concern in

the protection of their interests and wellbeing in research. If revealing their responses would injure them in any way, adherence to this norm becomes more important. The researcher did not reveal any information regarding the participants and their identities. The researcher is a master's student and adhered to the research and ethics protocol of the University of Western Cape.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.0 INTRODUCTION

This chapter presents the results of the data that was collected. The chapter presents the socio-economic environment of the case. The quantitative data analysis is presented first and thereafter the qualitative data analysis. The responses of the different groups of respondents are presented independently to extract the data and to inform the findings and recommendations.

4.1 DESCRIPTION OF CASE STUDY

Windhoek is the capital and largest city of Namibia. It is located in central Namibia in the Khomas region and it is the country's economic hub. The population of Windhoek is 431 000 (Namibia Population, 2020) which is growing continually due to migration from all over Namibia. Windhoek is the social, economic, political, and cultural center of the country. Nearly every Namibian national enterprise, governmental body, educational and cultural institution is headquartered in Windhoek.

Havana is an informal settlement in Katutura, a high-density residential area on the north-west urban edge of Windhoek. Havana has an estimated total number of 13 800 shacks accommodating a population of about 50 000 permanent residents (Shack Dwellers Federation, 2019). These informal settlement dwellers are faced with human settlement problems such as poor infrastructure (lack of proper adequate water supply and poor drainage systems), limited access to basic services (water and sanitation). The effective provision of adequate drinking water and proper sanitation services are two of the major challenges confronting the City of Windhoek due to over-crowdedness. With the urban population growth, the need for serviced land and housing is also rising which has resulted in the growth of poorly serviced informal settlements. Moreover, these settlements are often far from jobs, services and social and economic amenities thus further increasing the poverty level in the urban areas. Chitekwe-Biti (2018) state that over the last years, Windhoek, Namibia has grown substantially and informal settlements have expanded, making it ever more pressing to secure basic services and suitable housing for residents of these settlements (as shown in figure 3).

convenient sampling process. This section provides data presentation and analysis with regards to the questionnaires distributed to the informal settlement residents.

4.2.1 Socio-demographic data analysis

Table 1: Socio-demographic data

Particulars	Variable	Frequency (N)	Percentage (%)
Gender	Male	15	42.9%
	Female	20	57.1
Age category	20-29 years	8	22.9
	30-39 years	13	37.1
	40-49 years	10	28.6
	50 years and above	4	11.4
Marital status	Single	21	60.0
	Married	5	14.3
	Separated	2	5.7
	Divorced	5	14.3
	Widowed	2	5.7
For how long have you lived in this area	1-3 years	5	14.3
	4-6 years	16	45.7
	7-9 years	10	28.6
	10 years and above	4	11.4

4.2.1.1 Gender

Table 1 shows that 57.1 % of the respondents were females and 42.9 % of the respondents were males. This shows that the researcher interviewed more females living in the Havana Informal Settlement compared to the males because more females were readily available at the time. The UN National Habitat (2003) states that men are more likely to be in paid employment than women regardless of race, while women are more likely than men to be doing unpaid economic work. The unemployment rate remains higher among women and informal settlements meet urgent housing needs in cities, often benefiting poor women and their families.

4.2.1.2 Age

The data indicated that 22.9 % of the respondents were between the ages of 20-29 years, 37.1% of the respondents were between the ages of 30-39 years, 28.6 % of the respondents were between the ages of 40-49 and the remaining 11.4% respondents were in the age group of 50 years and above. However, this did not affect their ability to answer the relevant questions since they were literate and old enough to answer the questionnaires given to them. Respondents aged between 30-39 years have indicated that they migrated to the city in large numbers because they view the city as an economic center where their livelihoods will be improved. The negative consequence is that many do not find employment, are unable to secure housing and hence are forced to live in shantytowns without proper sanitation, health care, education, and better living conditions.

4.2.1.3 Marital status and source of income

Concerning the marital status, 60% of the respondents were single, 14.3% of the respondents were married, 5.7% of the respondents were widowed, while 5.7% of the respondents were separated and the remaining 14.3% of the respondent indicated that they were divorced. A higher single persons population may just coincide with the fact that most people in the settlement are young people that migrated to the city in search of opportunities and to start a family.

The source of income varies and in this regard, some of the divorced respondents indicated that they were receiving grants. Those that are widowed went on to say that, they make use

of the Government Institution Pension Fund (GIPF) grant which is a monthly grant that is given to children under the age of 25 whose parents are deceased and cannot afford to pay for school. They use the money they receive for their families' survival. Other respondents that indicated that they were widowed, separated, or single indicated that they are struggling to feed their families, as they are the only providers and breadwinners of their families. They further stated that the Havana Informal Settlement was the only place they could settle because even though it is not the best condition to live in because housing and shelter are not affordable in Windhoek.

4.2.1.4 Duration of Stay

From Table 1, 14.3% of the respondents indicated that they have been living in Havana between 1 and 3 years while 45.7% of the respondents indicated 4 to 6 years, and another 28.6% of the respondents indicated 7 to 9 years while the remaining 11.4% of the respondents indicated 10 years and above.

Most of the respondents that participated in this study are aware of the type of informal settlement that they live in and have an idea of the type of service delivery experienced in the Havana Informal Settlement because they all stated that they are not happy with the service delivery but they also do not have a choice as they cannot afford proper sanitation and better living conditions.

While the City of Windhoek is aware of the service delivery problems in Havana Settlement, it is also challenged with an increasing population that is not planned for. The City of Windhoek is challenged with financial resources, which are limiting the City of Windhoek from providing proper sanitation for the said informal settlement.

The findings are discussed below:

4.3 RESPONSE RATE

Table 2: Havana Informal Settlement residents' response rate analysis

Questionnaire administration	Frequency	Percentage (%)
Questionnaires distributed	35	100
Questionnaires completed	35	100

Table 2 shows a 100% response rate which allowed the data to be subjected to further statistical analysis.

4.3.1 Reliability analysis

Table 3: Reliability analysis

Reliability Statistics		
Cronbach's Alpha ^a	Cronbach's Alpha Based on Standardized Items	N of Items
.787	.131	12

Reliability statistics measure internal consistency, on how well structured the questions used in the study are and it also measures if the same questions can derive similar answers from the same population. Cronbach (1970) asserts that values below 0.5 are unacceptable while alpha values above 0.5 are acceptable ($0.5 \leq \alpha < 0.6$ is poor, $0.6 \leq \alpha < 0.7$ is questionable, $0.7 \leq \alpha < 0.8$ is acceptable, $0.8 \leq \alpha < 0.9$ is good, $0.9 \leq \alpha$ is excellent) (Hair, Black, Babin & Anderson, 2010). Table 3 indicates an alpha value of 0.787 which falls in the range of acceptable. The questions and answers provided have met the required reliability.

4.3.2 Sample adequacy test

Table 4: Sample adequacy test

Table 4.3 KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778	
Bartlett's Test of Sphericity	Approx. Chi-Square	1437.321	
	Df	105	
	Sig.	.000	

The KMO index and Bartlett's Test of Sphericity measure the sample adequacy, in other words, how good enough a sample is representative of the population. According to Hair et al (2006), a KMO value > 0.5 with a Bartlett Chi-square approximation > 50.0 is acceptable at a significance level $p < 0.000$. Significance $p < 0.000$ shows that data did not have or had minimal internal errors or redundant variables. Table 4 shows a KMO value of 0.778 and Bartlett Chi-

square 1437.321 implying that the sample used for the study is acceptable or sufficient for further data analysis to take place.

4.3.3 Exploratory factor analysis

Table 5: Factor loading		
Item/ question	Initial	Extraction
Do you have access to safe drinking water and proper sanitation?	1.000	.779
Do you have access to waste removal?	1.000	.917
If yes, how often is the waste removed?	1.000	.742
Do you have access to a toilet facility?	1.000	.898
If yes, which toilet facility is available in your settlement?	1.000	.804
Have you suffered or anyone in your family suffered from any borne disease?	1.000	.807
Do you report waste removal and sanitation issues to the municipality?	1.000	.879
How often do the officials of the City of Windhoek empty the waste bin?	1.000	.797
What are your suggestions on improving sanitation within your settlement?	1.000	.687
Extraction Method: Principal Component Analysis.		
Suppression level 0.6		

Factor loading is an expression of how significant the question used in the study were with respect to the study problem, in other words, how loaded the question was in addressing the objectives of the study. Questions that appear above the benchmark are well loaded and correct. According to Hair et al (2014) factor loading is acceptable at ≥ 0.6 though some researchers can accept ≥ 0.5 . The researcher used a higher standard of ≥ 0.6 and suppressed all values below 0.6. Table 5 shows that the questions remaining had factor loading above the threshold,

these questions constitute 75% of the questions used in the study, therefore bulky of the researcher's questions were significant for the study.

4.3.4 Descriptive Quantitative analysis

Table 6: Access to clean water and proper sanitation

Do you have access to safe drinking water and proper sanitation?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	75	71.4	71.4	71.4
	No	30	28.6	28.6	100.0
	Total	105	100.0	100.0	

The respondents were asked if they have access to safe drinking water and proper sanitation. Table 6 shows that 71.4% of the respondents indicated that they have access to safe water and proper sanitation because they are closer to the shared tap and do not have to walk long distances to fetch water while the remaining 28.6% of the respondents indicated that they do not have access to water because they live far from the shared tap. The data indicates that the majority of the respondents have access to water and sanitation facilities but these facilities might not be at the appropriate places for every resident to have access to it. The risk to their personal safety to fetch water at night is high and residents feel that their access is limited. The taps are communal and no one is taking accountability for the safekeeping and maintenance of the taps. The area around the taps is unhealthy and pose a health risk to some of the respondents that do not have proper access to these facilities.

Table 7: Access to waste removal

Do you have access to waste removal?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	28	80.0	80.0	80.0
	No	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

Table 7 shows that 80% of the respondents have access to waste removal and the remaining 20% of the respondents do not have access. The data shows that most of the respondents have access to waste bins situated at a strategic location within their vicinity but the residents tend to litter and just throw waste around because the waste bin is a distance away and situated at some locations within the informal settlement. Since the City of Windhoek cannot provide wheelie/individual bins for the residents living in the area due to limited financial resources, the City of Windhoek has provided waste bins, which are only situated in strategic locations.

Figure 4: Removal of waste bins by the officials of Windhoek City Municipality

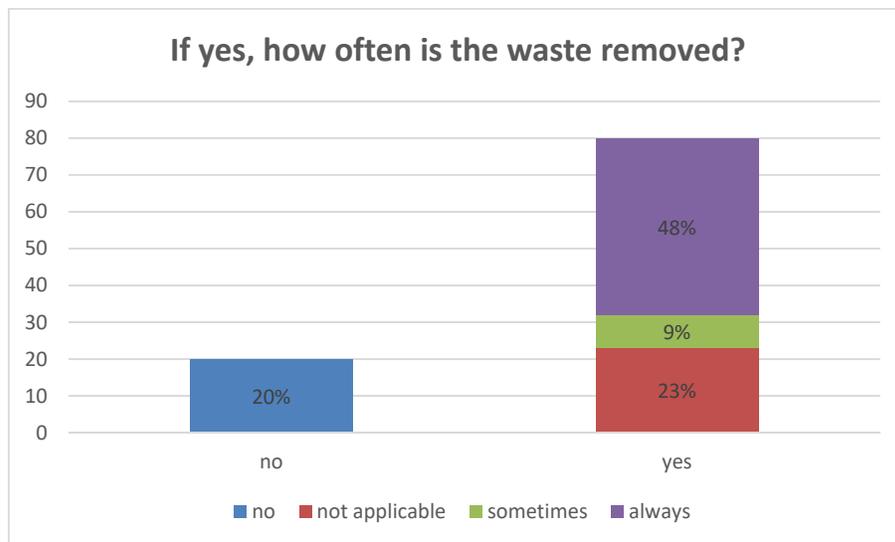


Figure 4 shows that apart from 20% of the respondents mentioning that they do not have access to waste collection, 80% agree that they have access to waste collection but at different parameters. In the 80% of those who have access to waste collection 23% say that it is not applicable because they are not sure of what to say, 9% said sometimes because they feel the waste collection is not regular while 48% agree that waste collection is regular on a weekly basis. Although (60%) of the respondents stated that waste collection is regular a large percentage (40%) of respondents indicated that waste collection is absent.

Table 8: Access to a toilet facility

Do you have access to a toilet facility?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	32	91.4	91.4	91.4
	No	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

The respondents were asked if they had access to a toilet facility within their settlement, from Table 8, 91.4% of the respondents indicated that they have access to a toilet facility and the remaining 8.6% indicated that they do not have. Observations show that the residents have access to toilet facilities although most of the respondents reside far from the toilets and have to walk long distances. 8.6 % of the respondents also indicated that they tend to use the bush. This is practically unhygienic and dangerous.

Figure 5: Type of Toilet facilities available in the Havana Informal Settlement

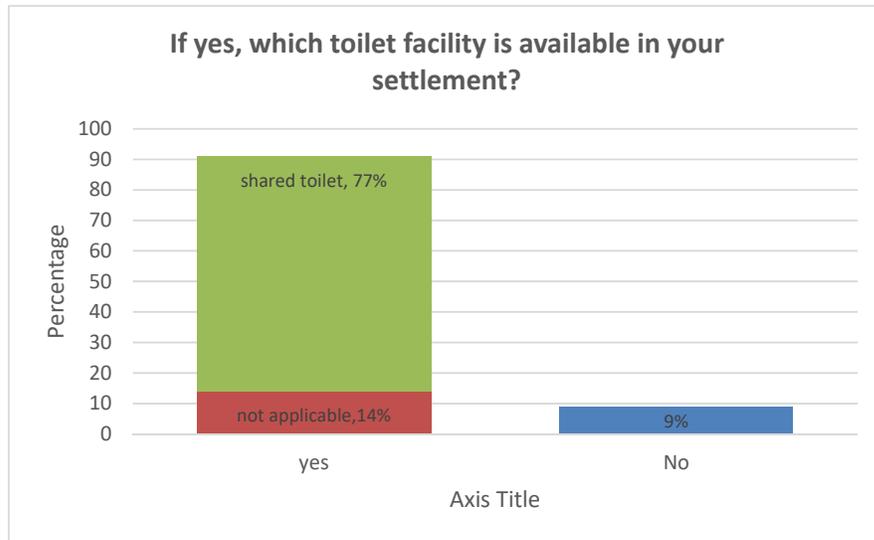


Figure 5 supports Table 8 by categorising those respondents who further answered to the nature of the toilet system available in the Havana Informal Settlements. While 9% of the respondents said that they do not have access to toilet facilities, 14% who are attributed to saying they have access indicated that the question was not applicable, this is because the 14% of the respondents might be implying that they have been using the bush system which is a health hazard. Since 77% of the respondents said they have access to the shared toilets, it is notable that these communal toilets are located at different strategic places and are shared by people living around the vicinity. Residents that are living far from the communal toilet end up using the bush or flying toilets to help themselves because the toilets are far. A flying toilet is the use of plastic bags for open defecation, which are then thrown into ditches, on the roadside, or simply as far away as possible (Wheaton, 2009). Some of them burst open upon impact or clog drainage systems. If they land on fractured water pipes, a drop in water pressure can cause the contents to be sucked into the water system and cause sickness like diarrhea, skin disorders, typhoid fever, and malaria.

Table 9: Water pipe borne disease suffered by a member of the family

Have you or anyone in your family suffered from any borne disease?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	14.3	14.3	14.3
	No	30	85.7	85.7	100.0
	Total	35	100.0	100.0	

The respondents were asked if they or anyone in their family has suffered from any borne disease. Table 9 shows that 85.7 % of the respondents indicated that none of their family members has suffered from any waterborne disease before while the remaining 14.3% indicated that their family members have suffered from waterborne disease. There is significant support from literature that highlights that poor sanitation and inadequate water supply promotes the spread of water-borne diseases. The majority of human widespread infections are spread through inadequate sanitation. Viruses, bacteria, protozoa and worms may spread through direct contact, indirectly via carriers and vectors. Cholera deaths are an indication of a poor health system and certainly poor sanitation (Evans, 2008). It shows that there is a tendency that waterborne diseases can be caused by poor sanitation.

Table 10: Payment for Municipal services

Do you pay for municipal services such as waste bin collection?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	34	97.1	97.1	97.1
	No	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

Table 10 shows that 97.1% of the respondents indicated that they do pay for any municipal service. This shows that there is a proper arrangement made by the City of Windhoek Municipality for Havana residents to pay for any services rendered to them by the municipality including the rates and taxes for the erven they live on. The payment of services

such as water by Havana resident's assist with the proper service delivery to Havana residents.

Table 11: Report of leaking taps or pipes to the Municipality

Do you report leaking taps and pipes to the municipality?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	88.6	88.6	88.6
	No	4	11.4	11.4	100.0
	Total	35	100.0	100.0	

With respect to Table 11, 88.6 % of the respondents indicated that they always report leaking taps or pipes to the employees of the City of Windhoek municipality any time they have access to them, while the remaining 11.4% indicated that they do not report. The researcher observed that the residents report leaking taps or pipes to the local authority but the challenge is that the residents only inform the City of Windhoek officials when they visit the Havana Informal Settlement, which is occasionally.

Table 12: Removal of waste bins by the officials of the City of Windhoek Municipality

How often do the officials of the City of Windhoek empty the waste bins?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	24	68.6	68.6	68.6
	Sometimes	9	25.7	25.7	94.3
	Not at all	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

Table 12 shows that 25.7% of the respondents agree that the officials of the City of Windhoek sometimes remove waste bins from Havana settlement while the remaining 68.6% indicated that waste bins are 'always' removed on a weekly basis. The data indicates that the City of

Windhoek officials are removing waste bins from the Havana Informal Settlement although the regular removal is disputed by some.

4.3.5 What are your suggestions on improving the waste bin removal and improving sanitation?

Most of the respondents indicated that the City of Windhoek should at least supply waste bins to each household or strategic mass community bins and build more toilets. This will invariably combat the sanitation problems that Havana residents face daily.

4.3.6 What do you think the City of Windhoek can do to address these challenges?

Most of the respondents indicated that the City of Windhoek officials should visit the Havana Informal Settlement, calculate the number of households and plan for proper sanitation like the building of modern flushing toilets, provision of waste bins, more water taps and educate the Havana Informal Settlement residents on hygiene and sanitation.

4.4 RESPONSES BY CITY OF WINDHOEK EMPLOYEES

This section provides the data presentation and analysis with regards to the interviews with the City of Windhoek employees. It is important to obtain views from the officials regarding the provision of water and sanitation to improve the reliability of the results.

4.4.1 Response rate analysis

Table 13: City of Windhoek employee response rate

Questionnaire distribution	Frequency	Percentage (%)
Questionnaires distributed	10	100
Questionnaires completed	10	100

Table 13 shows a 100% response rate which allowed data to be subjected to further statistical analysis.

4.4.2 Socio-demographic data analysis

Table 14: Socio-demographic data - City of Windhoek employees

Particulars	Variable	Frequency (N)	Percentage (%)
Gender	Male	5	50
	Female	5	50
Position	Management level	2	20
	Middle Management	2	20
	Lower Management	3	30
	Entry Level	3	30
Academic Qualifications	Master's Degree	9	90
	Degree	1	10
Duration of employment	4-6 years	5	50
	7-9 years	2	20
	10 years and above	3	30

4.4.2.1 Gender

From Table 14 above, the researcher interviewed ten respondents of the City of Windhoek. It shows that 50% of the respondents were male and 50% of the respondents were female which is an indication that males and females equally participated in the study. The study also has a high chance of uncovering balanced opinions due to an equal gender representation regarding sanitation since it is a challenge that is imminent on everyone in the general population.

4.4.2.2 Respondents' position with the City of Windhoek

Table 14 above shows that 20% of the respondents are at the top management level, 20% of the respondents are at the middle management level, 30% are at entry-level, and another 30% are at the lower management level. 70% of the respondents are management in the City of Windhoek municipality which works well for the study in the sense that they are involved in the decision making regarding the city's water and sanitation, especially in response to the emergence of informal settlements in the city.

4.4.2.3 Respondents' highest Qualification

This question was asked to determine the education or qualification level of respondents. Results show that 90% of the respondent's highest qualifications were a Master's degree while the remaining 10% had a first degree. This means that 100% of the respondents have qualifications therefore data were collected from relevant respondents needed to complete the study. The City of Windhoek municipality employs the necessary skilled and competent professionals to improve their quality service delivery. Overall, this indicates that the respondents interviewed have adequate education.

4.4.2.4 Respondents' employment duration at the City of Windhoek

The respondents had to state the duration of their employment, their responses are presented in Table 14. 50% of the respondents have worked for the City of Windhoek between 4 and 6 years, 20% of the respondents have worked for the City of Windhoek between 7 and 9 years while the remaining 30% of the respondents have worked there for more than ten years. The respondents are experienced and are familiar with the operations and therefore able to make a meaningful contribution to the research.

4.4.3 Section B: What are the Problems Hampering Quality Service Delivery?

The majority of the respondents indicated that the City of Windhoek lacked qualified personnel in most of the technological and engineering fields that deal with service delivery. The result is that unskilled personnel, who do not have the technical ability to deal with issues of sanitation, do the work. Some respondents indicated that there is a lack of resources, capital, machinery, and human power in the section of the sanitation department.

Below are details of some specific issues handled in the open-ended questions;

4.4.3.1 What are the policy challenges affecting water and sanitation service delivery?

Eighty percent of the respondents indicated that indeed the City of Windhoek municipality is facing challenges when it comes to policy reviews mostly due to a lack of time and expertise. The respondents indicated that the City embarked upon a few policy reviews to ensure policy relevance and that quality service is delivered. 20% of the respondents seemed to be unaware of the current policies and the policy reviews which is a signal of either ignorance or that policy reviews is not taking place in a transparent manner.

4.4.3.2 Does the National Government involve the City of Windhoek during water and sanitation policy reviews?

Respondents 2, 5, 8 and 9 stated that the National Government involves the municipality during water and sanitation policy reviews because the municipality has a bigger role to play in the review and subsequent implementation of these policies. The government works in collaboration with the City of Windhoek officials but the challenge is that the officials complain that they do not have adequate time to address all the issues and provide a comprehensive report.

The City of Windhoek officials raised the issue of political influence in the administration as a major frustration in policy formulation and review. The technically ‘unqualified’ councillors feel they have been voted, and are the peoples representative and therefore has the right to interfere in the administration. **Respondent 2** in the top management argued that government has a tendency of ignoring other important issues levelling them as pertinent while they are critical, and they are overlooked in policy. In other cases, the government does not encourage stakeholder engagement, provision for budget and subsidised infrastructure.

4.4.3.3 How does the City of Windhoek generate revenue to provide for safe drinking water and sanitation?

Respondents 1, 2, 3, 5, 7 and 8 indicated that the City of Windhoek does not generate enough funds to tackle the challenges they face when it comes to providing safe drinking water and proper sanitation to the informal settlements. This has always been a challenge because of the low revenue collection. This is also due to the non-payment of rates and taxes by the residents in the informal settlements. In July 2018 a debt of over 190 million was

written off since it was considered as an irrecoverable debt owed by pensioners and vulnerable residents. The situation had been exacerbated by the private businesses, the rest of Windhoek residents and the government through its ministers and departments owing the City of Windhoek millions. **Respondents 3, 5 and 8** further indicated that although the national government subsidises service delivery, there is still a need for further assistance by stakeholders as the number of informal settlements keeps increasing making it difficult for the city of Windhoek to tackle this problem alone.

4.4.3.4 The problems hampering quality service delivery in your local municipality?

Respondents 1, 3, 5 and 9 indicated that the Havana Informal Settlement is increasing at an alarming rate and the demand by far exceeds the pace of delivery. While **Respondents 2, 4 and 6** indicated that the lack of education contributes to the vandalism and unhygienic situation of the Havana Informal Settlement because residents are not knowledgeable about the challenges faced by the City of Windhoek. While the City is trying to improve sanitation and cleanliness within the informal settlement, people tend to just throw rubbish on the road and around the settlement instead of throwing it in the waste bins. This will later contribute to the breeding of mosquitos, which leads to malaria, and other critical environmental hazards such as Hepatitis E. **Respondents 1, 7, 8 and 10** also indicated that the lack of enforcement of municipal by-laws is a major challenge and the lengthy planning process.

4.4.3.5 Does the municipality involve Havana Residents in decision making?

All the respondents indicated yes, indeed the City of Windhoek Municipality has regular meetings with the informal settlements before any development projects are made. On an annual basis, the City has two public meetings where residents raise their concerns and issues related to service delivery. This shows that the public is involved, implying that the City of Windhoek municipality is advised of the real problems the informal settlements encounter.

4.4.3.6 What are your suggestions on improving the service delivery of water and sanitation?

The respondents made a number of suggestions on how to improve service delivery. **Respondents 6, 8 and 10** indicated that government should periodically review the regulations on water, waste and sanitation. **Respondents 4, 5 and 7** aired the same sentiments but highlighted the requirements to review the policy on the building of shacks in informal settlements. **Respondent 2** stated that currently, the law on water is that people should not use rainwater for cooking, drinking and other activities whilst the same respondent feels that the

rainwater has no harm, it can be used for household activities provided that it is boiled. **Respondents 1, 3 and 9** said that regulations must be set up to determine whether to work from the premises of total elimination of shacks or just to reduce them to make them safer and habitable. Suitable building materials for shacks as well as standards for shack construction taking health, safety, and security concerns into consideration.

4.5 CITY OF WINDHOEK COUNCIL MEMBERS

This section provides data presentation and analysis with regards to the interviews with the City of Windhoek Council members. The data presented here is mostly qualitative due to the fact that it was collected using open-ended structured questions.

4.5.1 Response rate analysis

Table 15: City of Windhoek Council response rate

Questionnaire administration	Frequency	Percentage (%)
Questionnaires distributed	15	100
Questionnaires completed	10	67

Table 15 shows a 67 % response rate which allows data to be subjected to further statistical analysis.

The interview process with councillors had the lowest response by far because it was executed at the onset of the COVID'19 lockdown. Scholars accept an analysis of qualitative data emanating from interviews with respondents that can range from at least 10-35 (Creswell 2014). Concerning Creswell (2014) qualitative data analysis acceptable ranges, the researcher decided to continue with data analysis.

4.5.2 Socio-demographic data analysis

Table 16: Socio-demographic data - Council Members

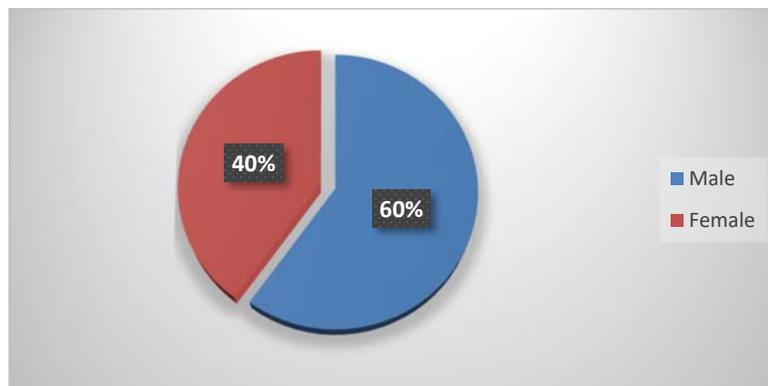
Particulars	Variable	Frequency (N)	Percentage (%)
Gender	Male	6	60
	Female	4	40
Age	30-39 years	2	20
	40-49 years	5	50

	50 years and above	3	30
Academic Qualifications	Matric	3	30
	Diploma	3	30
	Degree	1	10
	Master's Degree	3	30
Exposure to community work	Yes	9	90
	No	1	10

4.5.2.1 Gender

Table 16 shows that 60% of the respondents are male and 40% of the respondents are female indicating that more males participated in the study than females. (As shown in figure 5)

Figure 5: Respondents Gender



4.5.2.2 Age

Table 16 shows that 20% of the respondents are between the ages of 30-39 years, 50% of the respondents are between the ages of 40-49 years, while the remaining 30% of the respondents are 50 years and above. Chopik, Bremner, Johnson and Giasson (2018) states that the ages between 30-39 are considered as adulthood while the ages of 40-49 are considered to be middle age, showing that the majority of the respondents are energetic and have so far acquired a good exposure to community engagement.

4.5.2.3 Academic Qualifications

Table 16 shows that 30% of the respondent's highest qualifications is a Master's degree, 10% have a bachelors degree, 30% have a diploma while the remaining 30% have matric. Although 70% of the respondents have qualifications and are knowledgeable, it is not a requirement for council members to have formal qualifications since they are voted to a position.

4.5.2.4 Previous exposure to community work

Table 16 shows that 90% of the respondents have previous exposure to community engagement before becoming a councillor while the remaining 10 % did not have community engagement work experience. The respondents gained community engagement experience working with organisations such as South West African Peoples Organisation (SWAPO) party youth league, SWAPO Activist, Youth Leadership Programmes and previous consultations with leaders in informal settlements. The councillors, therefore, have the know-how in terms of working with communities to address the issues of safe drinking water and sanitation.

4.5.3 Section B: Challenges Facing the Municipality Council

This section covers the respondents' discussions on the challenges that affect the City of Windhoek municipality council in providing proper water and sanitation services to the informal settlements.

4.5.3.1 Challenges facing the municipality council in the provision of safe drinking water and sanitation services

Respondent 2, 6, and 9 stated that the lack of financial resources and inconsistency when it comes to the national budget and stakeholder contributions adds to the lack of safe drinking water and proper sanitation within the informal settlements. **Respondent 7 and 8** voiced that the number of informal settlements keeps increasing, making it difficult for the municipality to cope and provide the necessary services. **Respondents 1, 9 and 10** further stated that the lack of co-operation from community members is a major challenge because the residents tend to vandalise infrastructures such as community toilets, pipes and taps. **Respondent 3, 4 and 5** continued to stress that the residents of the informal settlement tend to occupy un-serviced land illegally making it difficult to provide water and electricity to those areas while **Respondent 3**

indicated that informal settlement residents are not paying their water rates leaving the municipality with no choice but to terminate their water supply.

4.5.3.2 How do the Council members' access information on the challenges faced by the informal settlement residents?

The majority of the respondents stated that they are informed through regular community meetings and appointments done by the community leaders. **Respondent 3** indicated that information is often received through letters addressed to the mayor's office, text messages, and social media complaints. **Respondent 8** added that they are sometimes informed through newspaper articles and council member's forums while **Respondents 4 and 5** aired that the majority of the councillors have offices closer to the settlers which makes it easier for informal settlers to schedule meetings with the councillors.

4.5.3.3 What strategies are used to address water and sanitation problems?

Respondent 2 and 10 indicated that there are ongoing cleaning campaigns and settlers are regularly educated on how to handle facilities. **Respondent 8** stated that the municipality has plans to recycle the Gammams Wastewater Treatment Plant, which is responsible for treating domestic and some industrial wastewater. There are also plans in place with WINCOR which is a German private company working hand in hand with the municipality to purify water in informal settlements. **Respondent 7** expressed that the municipality has received R 150 000-00 to build more toilets for informal settlements. At the moment 25 toilets have been completed, which the residents are currently not happy with. **Respondent 1 and 5** stressed that the municipality needs more public partnership agreements and a specialised advisory committee that can assist to address such problems. **Respondent 4** further mentioned that the municipality needs to formalise informal settlements and relocate the settlers to proper residential places. The policies need to be reviewed to tackle the problems at hand whereas **Respondent 6** stated that probably informal settlers should have a formal lease agreement in place for the area that they occupy.

4.5.3.4 Are the informal settlers' input taken into consideration by council members?

All respondents indicated that suggestions or recommendations by the informal settlers are usually discussed at the management committee meetings and can only be considered if

necessary or if resources are available. The management committee looks at what is basic or necessary and fits that in the budget first.

4.5.3.5 Are the water and sanitation policies reviewed regularly?

100% of the respondents indicated that policies are reviewed after 5 years or sometimes when the need arises. Even though policies can be reviewed at those times, respondents further stressed that they do not have time to regularly review policies, or the meetings do not have adequate time to tackle all the problems and community work that they have to attend to.

4.5.3.6 Are there any monitoring and Evaluation Policy systems in place?

60% of the respondents stated that the City of Windhoek recruits the necessary individuals to monitor and evaluate policies and ensure that they are still effective and up to date while 40% of the respondents further indicated that, they do not have any systems in place apart from the officials that are employed by the municipality, and usually results and observations are what is used by the councillors and community leaders to see if the current policies are effective.

4.5.3.7 Is there a budgetary provision for water and sanitation?

All the Respondents indicated that there is a reserved budget for safe drinking water and sanitation for all the informal settlements in Windhoek although it varies yearly due to inconsistencies from the national budget.

4.5.3.8 What Budget Accountability measures are in place?

Respondents 1 and 7 indicated that **the** council has an oversight committee that works in hand with the municipality finance department to ensure that funds are used appropriately. **Respondent 3** stated that the municipality annual financial statements are audited. **Respondent 5** resonated that there is also a procurement board in place to monitor and ensure that funds are accounted for and used for the correct purpose. **Respondent 10** expressed that council members usually receive quarterly reports to see how funds are spent whereas **Respondent 9, 8, 2 and 4** indicated that council members do not have control when it comes to the accountably of funds since they are not allowed to intervene as it may be considered a conflict of interest.

4.6 CHAPTER SUMMARY

This chapter focused on data presentation, analysis and the discussion of responses received regarding the questions posed. The chapter provided an analysis of the findings collected from the questionnaires distributed to the Havana Informal Settlement residents and the interviews held at the City of Windhoek. The collected quantitative data was analysed using SPSS and presented using tables and graphs. The following chapter will present the findings, conclusion and recommendation.

CHAPTER FIVE

FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter presents the findings, conclusion and recommendations. The research objective was to examine the institutional challenges faced by the City of Windhoek in the provision of water and sanitation to the Havana Informal Settlement residents. The research question posed was, what are the institutional challenges facing the City of Windhoek in providing water and sanitation to the residents of the Havana Informal Settlement? The chapter starts with the presentation of the findings, followed by the conclusion and recommendations.

5.1. FINDINGS

The following findings were made based on the data analysis;

5.1.1 The institutional challenges faced by the City of Windhoek in the provision of proper water and sanitation

- The findings indicated that debt collection policies are not implemented effectively resulting in a weak revenue collection. This supports the view of Mukwena and Drake (2010:321) that strict measures should be put in place to retrieve and recover debts owed to municipalities as the majority of the financing is intended to come from cross-subsidisation through user tariffs.
- The findings indicated that a community-based advocacy program must be developed to draw awareness amongst the community about health and related matters. The findings align with Gao et al (2007:21) regarding the benefits of effective and sustainable hygiene education programmes in informal settlements. If the community understand and adopt basic hygiene practices then it would result in the reduction of infant mortality and diarrheal diseases, improved environmental pollution and conditions of living. This is further supported by Hardoy et al (2008:

172) stating that hygiene education programmes are among the most effective ways of lowering health care costs especially in high-density settlements where residents are at great risk of poor sanitation-related diseases. More emphasis on training and the maintenance of toilets are imperative. The much needed social development and capacity building can be created through partnerships, which commonly leads to the sustainability of services and the creation of employment opportunities for these communities.

- The findings indicated that the vandalism and theft of public infrastructure must be addressed as a matter of urgency. The findings support the view of Mukwena and Drake (2010:323) that in countries like South Africa, Kenya, and Nigeria, the theft of water taps is a major obstacle and is considered as the quickest means to get cash. This derails effective water supply initiatives. It becomes expensive for the local municipality to constantly replace the taps that are simply stolen. To solve these problems, workshops should be held to inform the public about taking responsibility for protecting public property.
- The findings indicated that inward migration places pressure on limited resources to deliver services. The in-migration is mostly for employment opportunities. The findings support the view expressed by Mwanyekange (2014), the Government needs to implement a decentralised sustainable economic and infrastructure development framework that relieves pressure from main cities to lower-income inequalities; and reduce urban-migration. Singh and Sukla (2005:372) state that keeping up with the rapid pace of urban population growth will remain a key challenge to water and sanitation services providers in urban areas. The City of Windhoek should have an operative policy Monitoring and Evaluation (M&E) structure in place which can effectively design, implement and deliver public policies and services. This structure should be able to support strategic planning and policymaking by improving the links between policy interventions and their outcomes and impact.
- The findings indicated that monitoring and evaluation is non-existent within the City of Windhoek. In this regard, the work of Gold, Muller and Firtile (2010: 279)

regarding the need for effective monitoring mechanisms by the municipality is of importance.

- The study showed that policies are not addressing the needs of society, this is mainly because policies are not reviewed regularly resulting in policy not addressing the current societal needs.
- The study revealed that the budgeting process and allocation of the City of Windhoek contribute to the poor service delivery record in the Havana Informal Settlement. The findings support the view of Singh and Sukla (2005:372) that the distribution of resources, including land for housing, civic services and economic opportunities, have widened the gaps between the “planned city” and the “informal city.”
- The findings showed that Havana households have no source of income to build safe sanitation facilities and dependent on the government to provide sanitation facilities to households.
- Political interference is a major challenge and officials indicated that this is a major frustration and hampers service delivery.
- The findings indicate that the City of Windhoek lacks qualified personnel that are specialised in dealing with the procurement of service delivery and tendering systems, so they tend to use unskilled workers who do not have the technical ability to deal with issues of sanitation.
- The City of Windhoek does not generate enough funds to tackle the challenges that they face when it comes to providing safe drinking water and proper sanitation to informal settlements. This has always been a challenge due to the non-payment of rates and taxes by the residents, and in July 2018, The Namibian reported a debt of over R190 million which was written off since it was considered as an irrecoverable debt owed by pensioners and vulnerable residents. The situation has also been exacerbated by the private businesses, the rest of Windhoek residents and the government through its ministries and departments owing the City of Windhoek hundreds of millions of rands.

- The findings presented that the lack of co-operation from community members is also a major challenge because the residents tend to vandalise and steal infrastructure such as community toilets, pipes and taps to sell to the contractors or scrap-yards as the quickest means to obtain cash. This derails effective water supply initiatives and it becomes expensive for the local municipality to constantly replace the taps that are simply stolen.

5.1.2 Service delivery of water and sanitation supply to the Havana Informal Settlement residents

- The Havana Informal Settlement does not have adequate toilets. It seems that the City of Windhoek municipality is incapacitated in this area because of an improper plan of the location, so inadequate facilities of sanitation especially waste bins and toilets have handicapped sanitation process which tends to emit an odour and attract pests.
- Observations show that the Havana Informal Settlement residents are faced with water availability constraints. The water communal taps cannot cater for the growing informal settlement households as they are too distant for some settlers to reach. The use of water communal taps are inconvenient and time is wasted by long trips and long queues. This time could be used for more productive engagements.
- Water pollution is one of the greatest challenges facing the City of Windhoek. People pollute water with harmful and unpleasant substances because it is considered an easy way of disposal. It consequently takes a lot of effort and financial resources to purify the water.

5.1.3 Legislations and policies suitable for the City of Windhoek to carry on with the mandate of service delivery

- Since the inception of Havana Informal Settlement, people have resided in the location without adequate sanitation. There were no monitoring mechanisms to ensure that the residents of the Havana Informal Settlement adhere to the unique housing standards that can incorporate sanitation facilities.

- Policies are outdated due to failure by councillors to review and evaluate these with sufficient regularity. Therefore, new policies need to be implemented: those that will tackle informal settlement issues as situations in the informal settlements keep changing and policies need to be in place to confront current emerging issues.
- The government appears to be ignoring important issues levelling them as minor or non-urgent whilst these are critical and pertinent. These issues are overlooked and remain unaddressed in policies. In other instances, the government does not encourage regular stakeholder engagement or the budget provision and subsidised infrastructure relating to sanitation.
- The researcher discovered that the City of Windhoek municipality is governed by various outdated laws and regulations. This makes it easier for illegal land grabs due to the lack of regulations and the enforcement of some municipal by-laws which also create unnecessary lengthy planning processes.
- There is an apparent need to review the policies and regulations on the construction of informal dwellings must be initiated to determine the total elimination of the dwellings or to make these safer and habitable in accordance with the United Nations sustainability goals, in particular, goal six regarding clean water and sanitation.

5.1.4 The implications of the lack of services to the Havana Informal Settlement

- Residents tend to use the outdoors (bush) because of a lack of sanitation facilities. The use of the bush as a sanitation facility has a negative impact on the environment as it leads to the contamination of ground-water. People are also exposed to dangerous situations infringing upon their safety making use of these outdoor facilities, especially at night.
- The use of water from communal taps exposes people to unhealthy conditions if regular maintenance and pipe leaks are not repaired. As with boreholes, hand pumps and piped systems, the lack of regular maintenance can lead to water loss and water polluted infections such as water-borne diseases due to surface waste entering the water pipes.

5.2 CONCLUSION

In the light of the information presented in this study, it can be concluded that the City of Windhoek is faced with a number of institutional challenges which hinder the effective, efficient and economic delivery of basic services such as water and sanitation. Governance challenges such as political interference within the administration is one of the critical aspects that must be addressed. The municipal council instead of providing policy direction and monitoring, spend their time interfering in the affairs of the administration which leads to poor service delivery. A culture of payment must be inculcated to improve the revenue of the municipality to provide the services. The capacity and skill set of staff must be urgently addressed. The institutional challenges are not insurmountable and the City of Windhoek must put in place the necessary interventions to turn the situation around and improve the service delivery of water and sanitation.

5.3 RECOMMENDATIONS

- The City of Windhoek Municipality should fast track the provision of sanitation through the free basic household sanitation programmes to those who cannot afford to build their own sanitation facilities, while, households and communities who can afford to do so, should be encouraged to build their own innovative safe sanitation facilities.
- Politicians and practitioners should be equipped to innovate and to adapt solutions to address local constraints and opportunities. Moreover, The City of Windhoek should employ more skilled and knowledgeable personnel who are technically proficient.
- The old infrastructure must be replaced because it is well beyond its lifespan. Consequently, it is not able to cope with the current demands of local residents.
- The City of Windhoek municipality should provide more flushing toilets to the Informal Settlements.
- The households of the Havana Informal Settlements should be encouraged to choose a level of service for which they are willing and able to pay because residents feel that they are paying for water and yet the accessibility to water is inconvenient and unsafe.
- In order to ensure that pensioners and vulnerable account holders do not fall into debt, the council should convert water and electricity meters to pre-paid meters. The

process of installing prepaid water and electricity meters to homes of pensioners and vulnerable residents will eliminate debts.

- Public-Private Partnerships (PPP) is considered a crucial tool in assisting the government with development. The government should consider using PPP as a strategy for improving service delivery.
- Policies that can protect the water resources from pollution by enforcing the ‘polluter pays principle’ and regular water quality monitoring on all proposed projects should be implemented.

5.4 SUGGESTIONS FOR FUTURE RESEARCH

Future research should assess whether the Monitoring and Evaluation (M&E) systems used by municipalities are effective in achieving the necessary results. Likewise, the current policies, the challenges and the modalities of reviewing policies to enhance the probability of developing effective policies which address societal needs. The current challenge is the failure of the City Council to review policies that have become redundant and outdated in addressing contemporary issues faced by the City of Windhoek. An area for future research may entail the need to review strategies for municipalities to become financially self-sufficient in addressing policies. Future research may also seek ways in which the municipalities may endeavour to attract and monitor the performance of technically proficient employees to address policy deficiencies.

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APPENDIX A: PARTICIPATION INFORMATION SHEET



**UNIVERSITY of the
WESTERN CAPE**

**FACULTY OF ECONOMIC AND
MANAGEMENT SCIENCES
SCHOOL OF GOVERNMENT**

Participation information sheet for the Questionnaire

RESEARCH TITLE: THE INSTITUTIONAL CHALLENGES FACING CITY OF WINDHOEK IN THE PROVISION OF WATER AND SANITATION SERVICES: A CASE STUDY OF HAVANA SETTLEMENT

Dear Participant

You are invited to participate in a research study conducted by Tekla Amutenya. It is in partial completion of the researcher's thesis towards the Masters in Public Administration Degree at the School of Government, at the University of the Western Cape.

Before you decide to participate, it is important for you to understand the purpose of the research and what it would entail. Please take time to read the following information carefully and discuss it with others if you wish. If you are unclear of anything, I would be happy to answer any questions you may have.

PURPOSE OF THE STUDY

The purpose of this research project is based on the institutional challenges facing City of Windhoek in the provision of service delivery. It will also quantify the status of water supply and sanitation in Havana settlement.

DESCRIPTION OF STUDY AND YOUR INVOLVEMENT

We are inviting you to participate in this research project because you meet the set criterion for the population of interest and your participation will help other people. You will also be informed of all the consequences of the study and consent to participate in it. The study will be done in a random manner and the interview will last approximately 10 - 15 minutes.

CONFIDENTIALITY & ANONYMITY

Please be advised that the results of the study will neither divulge the organisation's particulars nor the individual particulars, as to maintain confidentiality at all times. Any information that can connect the responses to an individual or organisation will remain confidential and will be disclosed only with your permission.

The researcher shall keep all records of your participation, locked away at all times.

All raw data including written documents will be destroyed after three months of the final dissertation being marked and graded through shredding by the researcher. If a report or article about this research project is written, your identity will be protected.

RISKS OF THE RESEARCH?

Research participants may experience psychological harm in the course of a study and the researcher is aware of such dangers and will guard against them. Participants will be briefed of any sensitive information prior to the interview/completion of questionnaires. Participants will have the right to withdraw from participation at any time. Participant's emotional reactions will be consistently monitored. All the information collected will be treated confidentially and there will be no judgment of the respondent's views. Therefore, the study will be conducted professionally in order to prevent harm to participants.

BENEFITS OF THE RESEARCH

The study will inform policy formulation regarding the suitable delivery of basic services such as water and sanitation. Local Authorities play an important role in the development process of any economy and the City of Windhoek municipality is no exception. A study of this nature

is important to ensure that the development agenda is pursued and human dignity is restored. The findings of the study can be used to benefit other Local Authorities to identify and find suitable institutional solutions in planning of effective sanitation and adequate water supply intervention strategies for communities living in informal settlements in Windhoek.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Your participation in this research is entirely voluntary, which means that you are free to decline from participation. It is your decision whether or not to take part. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind and without giving a reason. You may also choose not to answer particular questions that are asked in the study. If there is anything that you would prefer not to discuss, please feel free to say so.

PAYMENT FOR PARTICIPATION

There are no costs to the participant for partaking in the study.

INFORMED CONSENT

Your signed consent to participate in this research study is required before I proceed to interview you. I have included the consent form with this information sheet so that you will be able to review the consent form and then decide whether you would like to participate in this study or not.

QUESTIONS

Should you have further questions or wish to know more, I can be contacted as follows:

Student Name	: Tekla Amutenya
Student Number	: 3986721
Mobile Number	: +264816980308
Work Number	: +264612062646

Email : **3986721@myuwc.ac.za**

I am accountable to my supervisor : **Dr G Davids**

Department : **School of Government**

Telephone : **0219593830**

Fax : **N/A**

Email : **gjdavids@uwc.ac.za**

This research project has received ethical approval from the Humanities and Social Sciences Research Ethics Committee of the University of the Western Cape,

Tel. 021 959 2988,

Email: research-ethics@uwc.ac.za

APPENDIX B: INTERVIEW QUESTIONS FOR THE HAVANA INFORMAL SETTLEMENT RESIDENTS



FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES
SCHOOL OF GOVERNMENT

QUESTIONNAIRE FOR THE HAVANA INFORMAL SETTLEMENT RESIDENTS

SECTION 1

DEMOGRAPHICAL INFORMATION

Please answer the questions by ticking the relevant choice with an X, and by giving a written comment in the space provided.

SECTION 1

RESPONDENT'S PARTICULARS

1. Gender:

Male Female

2. Age category

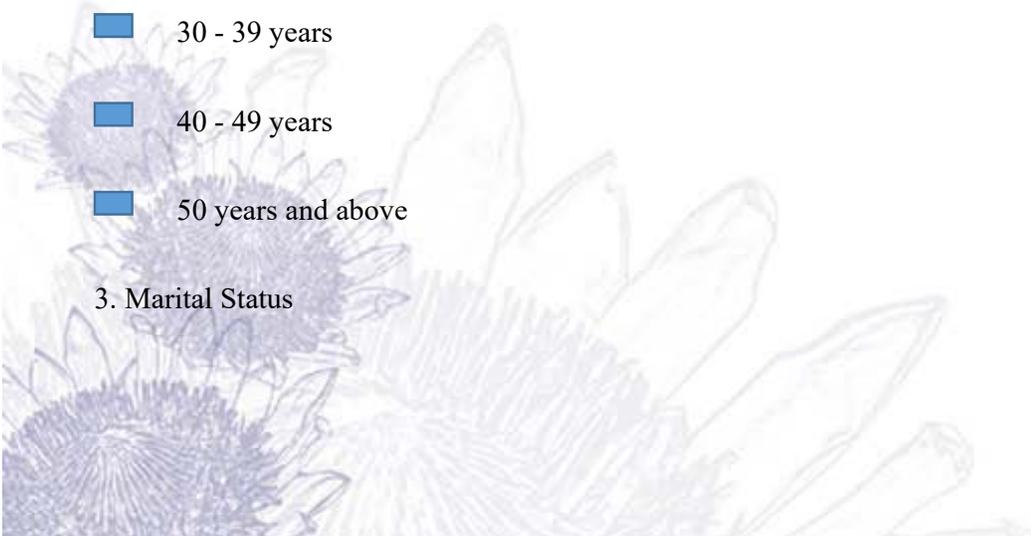
20– 29 years

30 - 39 years

40 - 49 years

50 years and above

3. Marital Status



- Single
- Married
- Separated
- Divorced
- Widowed

4. For how long have you lived in this area?

- 1- 3 years
- 4 -6 years
- 7 -9 years
- 10 years and above

SECTION 2: ACCESS TO SAFE DRINKING WATER AND SANITATION

1. Do you have access to safe drinking water and proper Sanitation?

- Yes
- No

2. Do you have access to waste removal?

- Yes No

3. If yes, how often is the waste removed?

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4. Do you have access to a toilet facility?

Yes No

5. If yes, which toilet facility is available in your settlement?

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6. Have you suffered or anyone of your family member suffered from any borne disease?

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7. Do you pay for municipal services such as waste collection bin?

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8. Do you report waste removal and sanitation issues to the Municipality?

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9. How often do the officials of the City of Windhoek empty the waste bins?

APPENDIX C: INTERVIEW QUESTIONS FOR THE WINDHOEK CITY MUNICIPALITY EMPLOYEES



FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

SCHOOL OF GOVERNMENT

UNIVERSITY of the WESTERN CAPE INTERVIEW QUESTIONS FOR THE WINDHOEK CITY MUNICIPALITY

SECTION 1

DEMOGRAPHY OF RESPONDENT

INTERVIEW QUESTIONS FOR THE EMPLOYEES

SECTION A

RESPONDENT'S PARTICULARS

1. Gender: Male Female

2. Respondents Position with the City of Windhoek

Entry-level

Lower level

- Middle Management
- Management Level and above

3. Academic qualification

- Matric
- Diploma
- Degree
- Masters and above

4. For how long have you been working at the City of Windhoek?

- Less than 3 years
- 4 – 6 years
- 7 – 9 years
- 10 years and above

SECTION B

1. Is the City of Windhoek facing policy review challenges when it comes to service delivery?
(Water & Sanitation)

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2. Does the National Government involve the city of Windhoek during water and sanitation policy reviews?

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3. Does the City of Windhoek generate enough funds to provide water and sanitation for informal Settlements?

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4. What are the major problems hampering quality service delivery in your local municipality?

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5. Do the employees of the City of Windhoek involve the residents of Havana Informal Settlement during decision making?

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6. Any other remarks and/or comments.

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APPENDIX D: INTERVIEW QUESTIONS FOR THE WINDHOEK CITY MUNICIPALITY COUNCIL



FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES
SCHOOL OF GOVERNMENT

INTERVIEW QUESTIONS FOR THE WINDHOEK CITY MUNICIPALITY COUNCIL

SECTION 1

DEMOGRAPHY OF RESPONDENT

INTERVIEW QUESTIONS FOR THE COUNCIL

SECTION A

RESPONDENT'S PARTICULARS

1. Gender: Male Female

2. Age category

- 20– 29 years
- 30 - 39 years
- 40 - 49 years

50 years and above

3. Academic qualification

Matric

Diploma

Degree

Masters and above

4. Do you have previous exposure to community work before becoming a councillor? If yes, please explain.

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SECTION B

1. What are the main challenges facing the municipality regarding safe drinking water and sanitation in informal settlements?

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2. How are council members informed of the challenges facing the informal settlement?

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3. What are the Municipal strategies to address the water and sanitation problems within the Informal settlement?

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4. How do council members implement the recommendations from the informal settlements issues?

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5. How often do council members review safe drinking water and sanitation policies to make sure they are current?

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6. What are the monitoring and evaluation mechanism or systems in place to ensure that policies are effective?

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7. Is there a budget for safe drinking water and sanitation for informal settlements? If yes, approximately how much?

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8. How do council members account for the budget allocation for safe drinking water and sanitation for informal settlements?

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APPENDIX E: ETHICAL CLEARANCE



UNIVERSITY of the
WESTERN CAPE



19 June 2020

Ms T Amutenya
School of Government
Faculty of Economic and Management Sciences

Ethics Reference Number: HS20/3/26

Project Title: The institutional challenges facing City of Windhoek in the provision of water and sanitation services: A case study of Havana Informal Settlement.

Approval Period: 19 June 2020 – 19 June 2023

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November each year for the duration of the project.

The permission to conduct the study must be submitted to HSSREC for record keeping purposes.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink, appearing to read 'Patricia Josias'.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

Director: Research Development
University of the Western Cape
Private Bag X 17
Bellville 7535
Republic of South Africa
Tel: +27 21 959 4111
Email: research-ethics@uwc.ac.za

NHREC Registration Number: HSSREC-130416-049

FROM HOPE TO ACTION THROUGH KNOWLEDGE.



KHOMAS REGIONAL COUNCIL

Tel no (061) 262236
Fax no (061) 257327
E-mail: amupex@gmail.com
Potomac Street
Our ref: KCR 14/1/8
Your ref:.....
Enquiries: Hon. F.S. Shivute

Khomas Regional Council
PO Box 337
Windhoek

04 December 2019

SAMORA MACHEL CONSTITUENCY

TO WHOM IT MY CONCERN

I honorable Fanuel San Shivute, Councilor of Samora Machel Constituency in Khomas Region, I do hereby confirming that **Ms. Tekla Amutenya, ID. 90012900117, residents of the Samora Machel Constituency.**

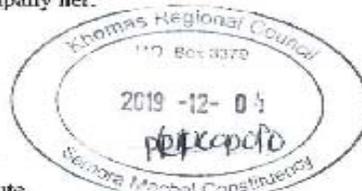
Ms. Tekla Amutenya She is a student at the University of the Western Cape. She respectfully request permission to do a research in Havana , **based on the institutional challenges facing city of Windhoek in the provision of services delivery.** All information collected will be solely applied for research purpose, and will be treated with utmost confidentiality. No personal detail are required as to protect the respondent identities and to enhance confidentiality.

For further information do not hesitate to contact my office and render her our usual assistant into this regard.

I have no hesitation in recommending this young lady to any future success and feel assured that she have the necessary determination to make a success into this chosen plan. My best wishes accompany her.

Yours Faithfully

Hon. Fanuel San Shivute
Councilor of Samora Machel Constituency



**Department of Human Capital
& Corporate Services**

☒ 59

Corner of 5378 Independence Avenue and Garten Street

WINDHOEK, NAMIBIA

Tel: (+264) 61 290 2911 • Fax: (+264) 61 290 3212 • www.cityofwindhoek.org.na



ENQ:	Mr. MA Nikanor	PHONE:	09 264 61 290 2630
DATE:	05 December 2019	FAX:	09 264 61 290 3212
		EMAIL:	ark@windhoek.org.na

**RE: THE INSTITUTIONAL CHALLENGES FACING CITY OF WINDHOEK IN THE
PROVISION OF WATER AND SANITATION SERVICES: A CASE STUDY OF
HAVANA SETTLEMENT: – MS. TEKLA AMUTENYA (STUDENT NO: 3986721)**

This letter serves as confirmation that Ms. Tekla Amutenya a student pursuing **MASTERS IN PUBLIC ADMINISTRATION** – University of Western Cape (School of Government) has been granted permission to conduct her research on the above subject within the City of Windhoek.

The research, which is in partial fulfilment of the studies, aims to investigate the institutional challenges facing City of Windhoek in the provision of water and sanitation services in the Havana settlement.

Respondents to the study are therefore requested to render Ms. T Amutenya their cooperation and assistance. Should there be any queries, please feel free to contact the Human Resources Development Division on the above contact details

Yours Sincerely

**AM NIKANOR
MANAGER: ORGANIZATIONAL & HUMAN RESOURCES DEVELOPMENT**



All official correspondence must be addressed to the Chief Executive Officer

23 February 2021

TO WHOM IT MAY CONCERN

I have completed a professional language edit of Ms Tekla Amutenya's mini-thesis, whose student number is 3986721. The mini-thesis is titled: ***The Institutional Challenges Facing City Of Windhoek In The Provision Of Water And Sanitation Services: A Case Study Of The Havana Informal Settlement.*** She intends to submit the mini-thesis for the degree of Master of Public Administration at the School of Government, Faculty of Economics and Management Sciences at the University of the Western Cape.

My qualifications are a BA English degree from the University of Namibia, a BA Honours (TESOL) degree from the University of South Africa and a Master of Arts degree in English Studies from the University of Namibia.

I have made suggestions, corrections where applicable and returned the document to Ms Amutenya for her perusal, and to track and effect the changes.

Please contact me if there are any questions in relation to the above-mentioned work done on Ms Tekla Amutenya's mini-thesis.

Sincerely,



Emelda #Gawas

BA (UNAM), BA Hons TESOL (UNISA), MA (UNAM)

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